Project No. 1251-100
Crude Oil Tank Farms Project, Agrood Area 30 (Module-1)

PETROJET Enppi EGPC

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

Sr.	Pre-Commissioning and Commissioning Dossier Index	Applicable (Yes/No)
1	Mechanical Completion Certificate (MCC)	
2	Ready for Startup Certificate (RFSU)	
3	System Punch Lists	
4	System Limits Marked Up P&ID	
5	System Index	
6	**Piping Pre-Commissioning**	
	6.01) Piping Test Packs	
	6.02) Piping Pre-commissioning Check Lists	
7	**Piping Commissioning**	
	7.01) Service Test, GLT, CLT and N2 Purging Certificates	
	7.02) Piping Commissioning Check Lists	

Sr.	Pre-Commissioning and Commissioning Dossier Index	Applicable (Yes/No)
8	**Mechanical Pre-Commissioning**	
	8.01) System Mechanical Index	
	8.02) Equipment Drawings	
	8.03) Equipment Datasheets	
	8.04) Boxing-up Certificates	

	8.05) Grouting Certificates	
	8.06) Pre-Alignment Certificates	
	8.07) Mechanical Pre-Commissioning Checklists	
9	**Mechanical Commissioning**	
	9.01) Final Alignment Certificates	
	9.02) Motor Solo Run Certificates	
	9.03) Mechanical Run Test (MRT) Certificates	
	9.04) Mechanical Commissioning Checklists	
	9.05) Mechanical Supplier Check Lists & Reports	
10	**Instrumentation Pre-Commissioning**	
	10.01) System Instrument Index	
	10.02) Instrument Data Sheets	
	10.03) Instrument Cable Schedule	
	10.04) System Instrumentation Wiring Diagram	
	10.05) Hook-up Drawing (Mechanical & Pneumatic)	
	10.06) Instruments Cables Schedule	
	10.07) Instruments Cables Laying Certificates	
	10.08) Instruments Cables Termination Certificates	
	10.09) Instruments Cables Testing Certificates	
	10.10) Instruments Calibration Certificates	
	10.11) Instrument Loop Checks Certificates	
	10.12) Instrumentation Pre-Commissioning Check Lists	
	10.13) Instrumentation Supplier Check Lists & Reports	
11	**Instrumentation Commissioning**	
	11.01) Instrumentation Function Test Certificates	
	11.02) Instrumentation Supplier Check Lists & Reports	
Sr.	**Pre-Commissioning and Commissioning Dossier Index**	**Applicable (Yes/No)**
12	**Electrical Pre-Commissioning**	
	12.01) System Electrical Index	
	12.02) Electrical Drawings	
	12.03) Motor Datasheets	
	12.04) Electrical Cables Schedule	
	12.05) Electrical Cables Laying Certificates	
	12.06) Electrical Cables Testing Certificates	
	12.07) Electrical Cables Termination Certificates	
	12.08) FAT Reports & Certificates	
	12.09) SAT Reports & Certificates	
	12.10) Electrical Pre-Commissioning Check Lists	
	12.11) Electrical Supplier Check Lists & Reports	

13	**Electrical Commissioning**	
	13.01) Electrical -Commissioning Check Lists	
	13.02) Electrical Supplier Check Lists & Reports	
14	**Red Marked-up Drawings**	
	14.01) P&ID	
	14.02) Instrumentation Drawings	
	14.03) Electrical Drawings	

Enppi PETROJET بتروجت

Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

Petroleum Pipelines Company شركة أنابيب البترول

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

Pre-commissioning and Commissioning Dossier Content:

Section		Description	Status
1-		Mechanical Completion Certificate (MCC) Ready For Start-up (RFSU)	
2-		System Punch Lists	
3-		System Limits Marked Up	
4-		FAT Test Report & Certificates	
5-		System Index.	
6.A-		Electrical Pre-commissioning	
	6.A.1	General Arrangement and Wiring Diagrams	
	6.A.2	Single line Diagram	
	6.A.3	Electrical Panel Schedule	
	6.A.4	Electrical Cable Schedule	
	6.A.5	Pre-Commissioning Check List	
6.B-		Electrical Commissioning	
	6.B.1	Commissioning Check List	
7-		Red Mark-Up Drawings (If Any)	

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

1-Mechanical Completion Certificate (MCC)

Enppi

SYSTEM MECHANICAL COMPLETION CERTIFICATE (MCC)

PROJECT TITLE	:	CRUDE OIL TANK FARM(AGROOD AREA
PROJECT No	:	1251-100
SYSTEM NAME	:	Substation 6.6KV High Voltage Switchgear System
SYSTEM ID	:	030-EL-002

THIS IS TO CERTIFY THAT:

- **THE ABOVE SYSTEM HAS BEEN FABRICATED, ERECTED, INSTALLED AND TESTED TO THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS, THE APPLICABLE CODES AND STANDARDS.**
- **ALL PRE-COMMISSIONING RELEVANT ACTIVITIES, TESTS, INSPECTIONS AND CHECKS HAVE BEEN CARRIED OUT FOR THIS SYSTEM AND FOUND ACCEPTABLE.**
- **Q/C DOCUMENTATION OF THE ABOVE SYSTEM HAS BEEN AUDITED BY THE CUSTOMER SITE QUALITY CONTROL AND FOUND COMPLETED.**
- **ALL PUNCH LIST ITEMS CATEGORY (A) IN THIS SUBSYSTEM WERE CLEARED.**
- **THIS SYTEM IS MECHANICALLY COMPLETED ON THE DATE** 21/06/2021 **AND READY FOR COMMISSIONING (RFC) WITH THE FOLLOWING EXCEPTIONS.**

EXCEPTIONS :

NOTE: ACCEPTANCE OF THE ABOVE SYSTEM DOES NOT RELIEVE ENPPI/CONSTRUCTION CONTRACTOR FROM THEIR CONTRACTUAL OBLIGATIONS AND RESPONSIBILITIES.

COMPANY	**PETROJET**	**ENPPI**	**PPC**
NAME		M. Abbass	
TITLE			
SIGNATURE			
DATE			

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

2- Ready for Startup Certificate (RFSU)

ETROJET Enppi EGPC

READY FOR START UP CERTIFICATE

PROJECT TITLE	:	**EGPC CRUDE OIL TANK FARMS PROJECT (AGROOD-02)**
PROJECT No.	:	**1251-100**
SYSTEM /AREA /PLANT	:	**Substation 6.6KV High Voltage Switchgear System**
SYSTEM /AREA /PLANT No.	:	**030-EL-002**

THIS IS TO CERTIFY THAT:

- **THE MENTIONED SYSTEM /AREA /PLANT IS READY FOR START UP WHERE ALL MECHANICAL WORKS, PRECOMMISSIONING AND COMMISSIONING ACTIVITIES HAVE BEEN SUCCESSFULLY COMPLETED.**
- **MECHANICAL COMPLETION CERTIFICATE(S) FOR THE MENTIONED SYSTEM / AREA / PLANT HAVE BEEN SIGNED.**
- **ISSUANCE OF THIS READY FOR START UP CERTIFICATE(S) SHALL NOT RELIEVE CONTRACTOR(S) FROM THEIR OBLIGATIONS TO COMPLETE THE REMAINING SYSTEMS NOR FROM THEIR WARRANTY OBLIGATIONS AND OTHER PROVISIONS OF THE CONTRACT.**
- **THE FOLLOWING EXCEPTIONS AGREED TO BE CLEARED AFTER START UP AND WILL NOT PREVENT START UP ACTIVITIES.**

EXCEPTIONS :

COMPANY	**CONSORTIUM**	**PPC**
NAME	Ahmed El Shafie	Mohamed Ibrahim
TITLE	Commissioning Manager	Elec. eng.
SIGNATURE		
DATE	30- 6- 2021	4-7-2021

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

3- System Punch Lists

PETROJET بترو جت | Enppi | **PUNCH LIST** | EGPC

PROJECT TITLE : CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

PROJECT NUMBER : 01251-100 | **DISCIPLINE:UTILITIES**

SYSTEM NAME: Substation 6.6KV High Voltage Switchgear System | **SYSTEM ID:** 030-EL-002

SUB-SYSTEM NAME: | **SUB-SYSTEM ID:**

NO	DESCRIPTION	CAT	ACTION BY	DISP	CLEARANCE APPROVED BY
1	All Cables to be terminated and tested	A	PTJ	ELE	RM
2	All Bus Bars to be installed and torque by				RM
	Vendor supervision [Enppi / ~~PTJ~~]	A	~~PTJ~~ Enppi	ELE	
3	Earth lack key is damaged and need to be				
	~~damaged~~ fixed (Cell-Q1B)	A	PTJ	ELE	RM
4	Door lock For CB in Cell (Q-9A) is				
	damaged and need to be changed.	B	~~PTJ~~ Enppi	ELE	
	and (DP-02)				

CAT: CATEGORY(A,B,C) ,ACTION BY: (ENPPI,CONST.CONTRACTOR,SUPPLIER.....) , DISP: DESCIPLINE(PIP,MECH,ELECT,INST.....)

COMPANY	PTJ	ENPPI	PMC
NAME			
SIGN.			
DATE			2024

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

4- System Limits Marked Up P&ID

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

5- System Index

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

6- Piping Pre-Commissioning

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Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

Petroleum Pipelines Company شركة أنابيب البترول

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

6.01- Piping Test Packs

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

6.02- Piping Pre-commissioning Check Lists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

7- Piping Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

7.01- Service Test, GLT, CLT and N2 Purging Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

7.02- Piping Commissioning Check Lists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8- Mechanical Pre-Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.01- System Mechanical Index

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.02- Equipment Drawings

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.03- Equipment Datasheets

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.04- Boxing-up Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.05- Grouting Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.06- Pre-Alignment Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

8.07- Mechanical Pre-Commissioning Checklists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9- Mechanical Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9.01- Final Alignment Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9.02- Motor Solo Run Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9.03- Mechanical Run Test (MRT) Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9.04- Mechanical Commissioning Checklists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

9.05- Mechanical Supplier Check Lists & Reports

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10- Instrumentation Pre-Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.01- System Instrument Index

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.02- Instrument Data Sheets

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.03- Instrument Cable Schedule

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.04- System Instrumentation Wiring Diagram

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.05- Hook-up Drawing (Mechanical & Pneumatic)

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.06- Instruments Cables Schedule

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.07- Instruments Cables Laying Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.08- Instruments Cables Termination Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.09- Instruments Cables Testing Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.10- Instruments Calibration Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.11- Instrument Loop Checks Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.12- Instrumentation Pre-Commissioning Check Lists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

10.13- Instrumentation Supplier Check Lists & Reports

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

11- Instrumentation Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

11.01- Instrumentation Function Test Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

11.02- Instrumentation Supplier Check Lists & Reports

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12- Electrical Pre-Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

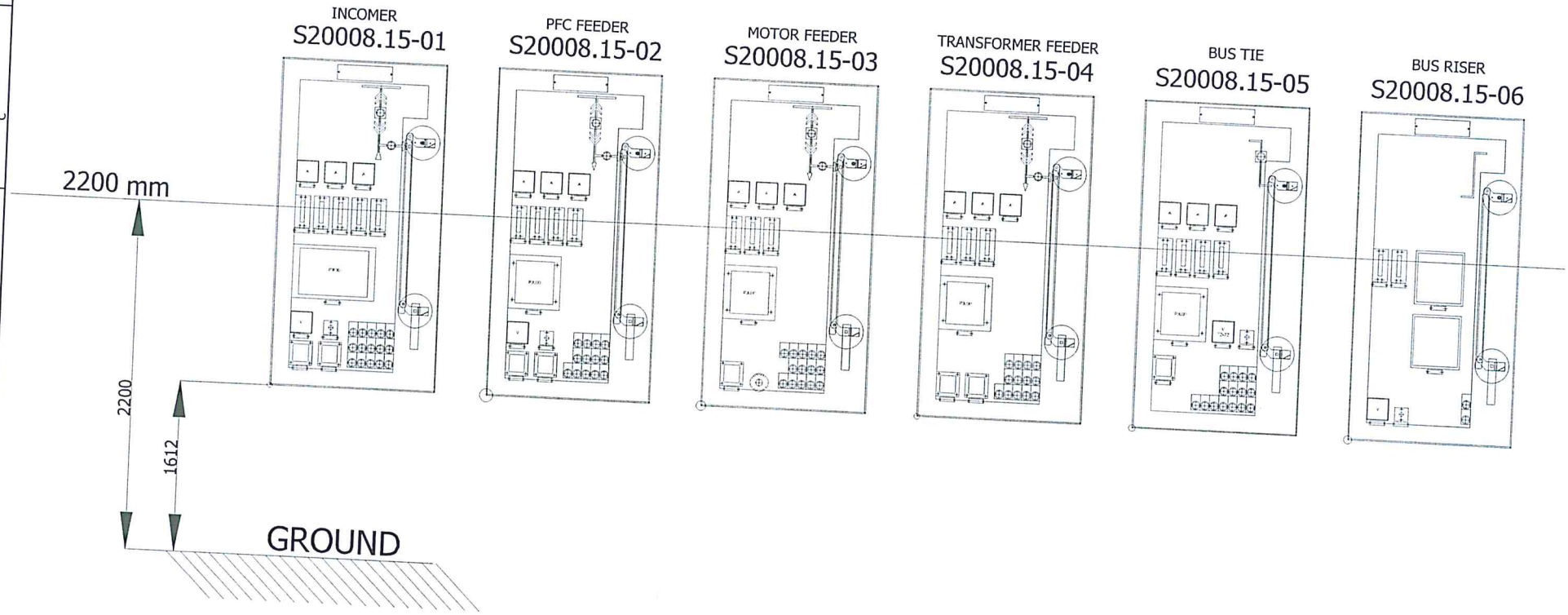
12.01- System Electrical Index

030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	030-SUB-HVSWG-6.6	6.6KV High Voltage Switchgear	Checklist	EL-03 A /EL-30 A /EL-31
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/1-030-SUB-HVSWG-6.6A	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/1-030-SUB-HVSWG-6.6B	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/2-030-SUB-HVSWG-6.6A	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/2-030-SUB-HVSWG-6.6B	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/3-030-SUB-HVSWG-6.6A	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/3-030-SUB-HVSWG-6.6B	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/4-030-SUB-HVSWG-6.6A	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P/4-030-SUB-HVSWG-6.6B	HV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C10-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C10-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C1-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C1-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C2-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C2-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C3-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C3-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C4-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C4-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C5-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C5-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C6-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C6-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C7-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C7-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C8-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C8-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C9-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	C9-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	D-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	D-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P1-030-SUB-HVSWG-6.6A	LV Cable	Checklist	EL-31 A
030-EL-002	Substation 6.6KV High Voltage Switchgear System	Electrical	P1-030-SUB-HVSWG-6.6B	LV Cable	Checklist	EL-31 A

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.02- Electrical Drawings

TYPICAL LV DOOR LAYOUTS



REVISIONS : A C D

SCHNEIDER ELECTRIC , TURKEY

Schneider Electric

CUSTOMER NAME
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES
PROJECT DESCRIPTION
EGPC CRUDE OIL [illegible]FARM PROJECT

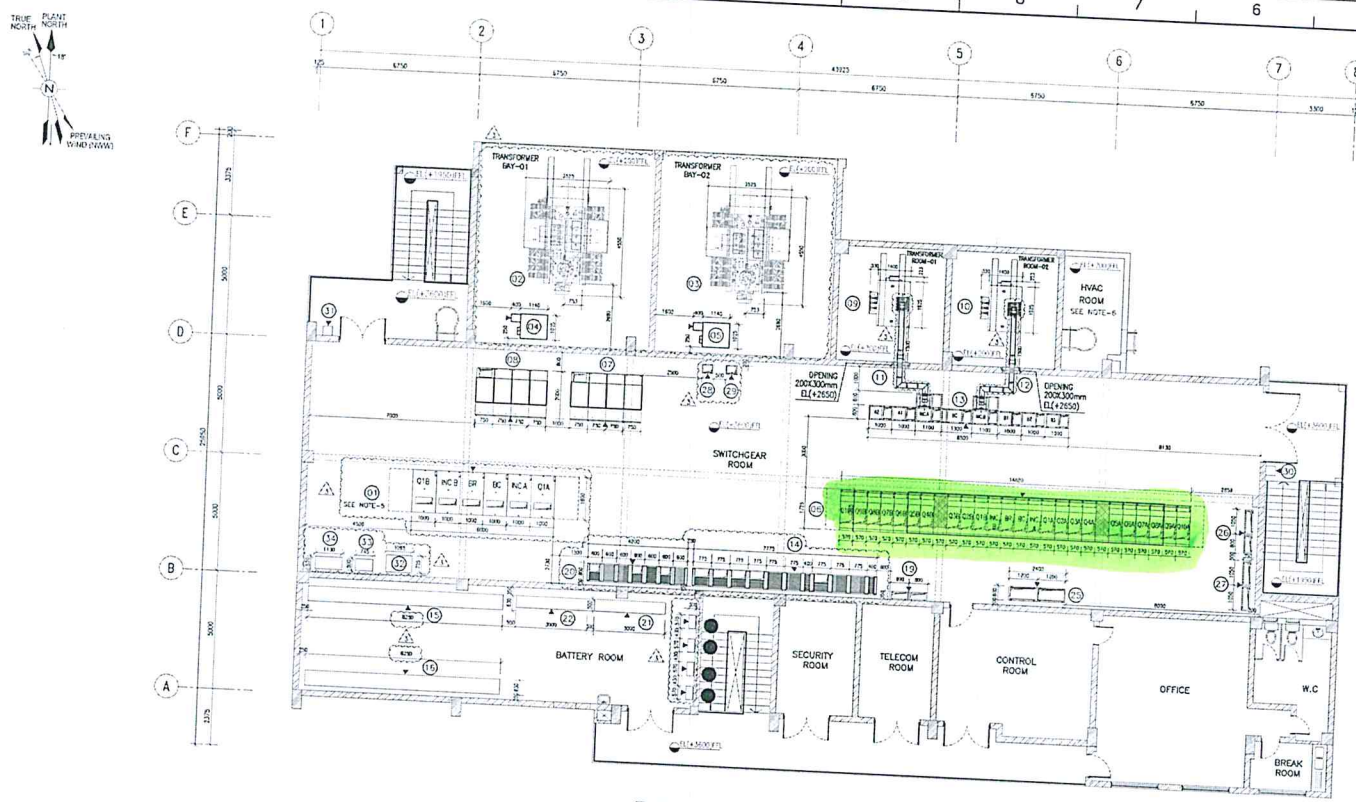
PAGE DESCRIPTION
TYPICAL LV DOOR LAYOUTS
DRAWING DESCRIPTION
SINGLE LINE DIAGRAM (Agrood [illegible]0-SUB-HVSWG-6.6)

PROJECT
S20008.15

bFO OPP #
OP-190825-8818236

DRAWING NUMBER
S2000815-P4

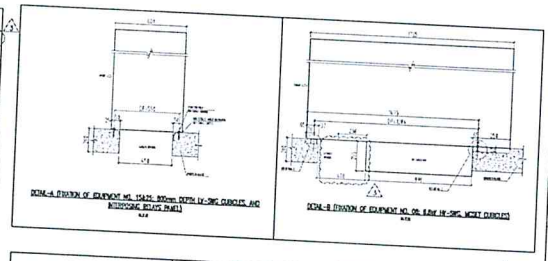
PAGE
15 / 32

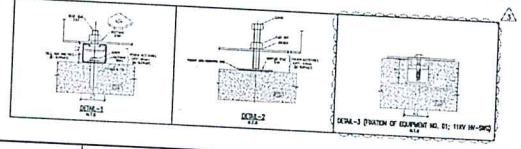


ELECTRICAL EQUIPMENT LIST

EQUIPMENT NO.	EQUIPMENT TAG	DESCRIPTION	FIXATION
(01)	030-SUB-HVSWG-11	11kV, 1250A AIR INSULATED SWITCHGEAR	FLOOR
(02)	030-SUB-PTR-1A	11/6.6kV, 8MVA OIL POWER TRANSFORMER	FLOOR
(03)	030-SUB-PTR-1B	11/6.6kV, 8MVA OIL POWER TRANSFORMER	FLOOR
(04)	030-SUB-NER-1A	6.6/√3kV, 200A/10SEC NEUTRAL EARTHING RESISTOR	FLOOR
(05)	030-SUB-NER-1B	6.6/√3kV, 200A/10SEC NEUTRAL EARTHING RESISTOR	FLOOR
(06)	030-SUB-MVSWG-6.6	6.6kV, 1250A AIR INSULATED SWITCHGEAR	FLOOR
(07)	030-SUB-PFC-1A	6.6kV, 360kVAR POWER FACTOR CORRECTION	FLOOR
(08)	030-SUB-PFC-1B	6.6kV, 360kVAR POWER FACTOR CORRECTION	FLOOR
(09)	030-SUB-TR-1A	6.6/0.4kV, 1000kVA DRY-TYPE DISTRIBUTION TRANSFORMER	FLOOR
(10)	030-SUB-TR-1B	6.6/0.4kV, 1000kVA DRY-TYPE DISTRIBUTION TRANSFORMER	FLOOR
(11)	030-SUB-LVSD-1A	0.4kV, 2000A LOW VOLTAGE BUS DUCT	----
(12)	030-SUB-LVSD-1B	0.4kV, 2000A LOW VOLTAGE BUS DUCT	----
(13)	030-SUB-LVSWG-1	0.4kV, 2000A AIR INSULATED SWITCHGEAR	FLOOR
(14)	030-SUB-ACUPS-1	400VAC, 50kVA AC UNINTERRUPTED POWER SUPPLY	FLOOR
(15)	030-SUB-ACUPS-1-BATT-A	BATTERY RACK-A FOR AC UPS	FLOOR
(16)	030-SUB-ACUPS-1-BATT-B	BATTERY RACK-B FOR AC UPS	FLOOR
(17)	030-SUB-ACUPS-CB-A	BATTERY RACK-A CIRCUIT BREAKER BOX FOR AC UPS	WALL
(18)	030-SUB-ACUPS-CB-B	BATTERY RACK-B CIRCUIT BREAKER BOX FOR AC UPS	WALL

EQUIPMENT NO.	EQUIPMENT TAG	DESCRIPTION	FIXATION
(19)	030-SUB-UPDP-1	UPS POWER DISTRIBUTION PANEL	WALL
(20)	030-SUB-DCUPS-1	110VDC, 75A DC UNINTERRUPTED POWER SUPPLY	FLOOR
(21)	030-SUB-DCUPS-1-BATT-A	BATTERY RACK-A FOR DC UPS	FLOOR
(22)	030-SUB-DCUPS-1-BATT-B	BATTERY RACK-B FOR DC UPS	FLOOR
(23)	030-SUB-DCUPS-CB-A	BATTERY RACK-A CIRCUIT BREAKER BOX FORDC UPS	WALL
(24)	030-SUB-DCUPS-CB-B	BATTERY RACK-B CIRCUIT BREAKER BOX FOR DC UPS	WALL
(25)	030-SUB-IRP-1	INTERPOSING RELAY PANEL	FLOOR
(26)	030-SUB-ASP-1	AUXILIARY SERVICE PANEL	FLOOR
(27)	030-SUB-LPDP-1	INDOOR LIGHTING AND SMALL POWER DISTRIBUTION PANEL	FLOOR
(28)	030-SUB-AVR-1A	AVR PANEL FOR ON-LOAD TAP CHANGER OF 030-SUB-PTR-1A	WALL
(29)	030-SUB-AVR-1B	AVR PANEL FOR ON-LOAD TAP CHANGER OF 030-SUB-PTR-1B	WALL
(30)	030-SUB-EPS-1	SUBSTATION EMERGENCY PUSH BUTTON	WALL
(31)	030-SUB-EPS-2	SUBSTATION EMERGENCY PUSH BUTTON	WALL
(32)	------	6.6kV HV SWG LIFTING TRUCK	----
(33)	------	6.6kV HV SWG EARTHING TRUCK	----
(34)	------	LV SWG LIFTING TRUCK	----





REFERENCE DRAWING AND DOCUMENTS

01251-100-030-KPP-002	AGROOD AREA (MODULE-1) PLOT PLAN
01251-100-030-AEL-001	AGROOD AREA (MODULE-1) MASTER EQUIPMENT LIST
01251-100-030-CBD-221	SUBSTATION CELLAR FLOOR PLAN
01251-100-030-CBD-222	SUBSTATION FIRST FLOOR PLAN
01251-100-030-KEE-001	AGROOD AREA (MODULE-1) GENERAL ELECTRICAL SINGLE LINE DIAGRAM
01251-100-000-KEE-002	ELECTRICAL SINGLE LINE DIAGRAM 6.6kV HIGH VOLTAGE MOTOR CONTROL CENTER
01251-100-000-KEE-003	ELECTRICAL SINGLE LINE DIAGRAM LOW VOLTAGE MOTOR CONTROL CENTER
01251-100-000-EDB-001	ELECTRICAL DESIGN BASIS

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL ELEVATIONS ARE IN MILLIMETERS.
3. THIS DRAWING IS CONCERNED ONLY WITH SUBSTATION ELECTRICAL EQUIPMENT.
4. ALL EQUIPMENT SHALL BE BOTTOM ENTRY UNLESS OTHERWISE INDICATED.
5. EQUIPMENT NO.1 SHALL BE SUPPLIED AND INSTALLED BY EGPC/CANAL ELECTRICAL DISTRIBUTION COMPANY.
6. ELECTRICAL EQUIPMENTS INSIDE HVAC ROOM (HVAC MCC & LCP) SHALL BE SUPPLIED AND INSTALLED BY PETROJET.

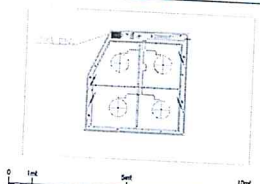
LEGEND

ELECTRICAL EQUIPMENT
FUTURE ELECTRICAL EQUIPMENT
GLAND PLATE
EQUIPMENT FRONT
EQUIPMENT NUMBER
DUMMY PANEL

ABBREVIATIONS

AC	ALTERNATING CURRENT	HV	HIGH VOLTAGE
AVR	AUTOMATIC VOLTAGE REGULATOR	INC	INCOMER CIRCUIT BREAKER
BC	BUS COUPLER CIRCUIT BREAKER	LV	LOW VOLTAGE
BR	BUS RISER	Q	OUTGOING CIRCUIT BREAKER
CB	CIRCUIT BREAKER	SWG	SWITCHGEAR
DC	DIRECT CURRENT	UPS	UNINTERRUPTIBLE POWER SYSTEM
DF	DISTANCE BETWEEN FIXATION POINTS		

KEY PLAN



PREV	DATE	DESCRIPTION	BY	CHECKED	DESIGNED	APPROVED
3	24.09.19	RE-ISSUED FOR CONSTRUCTION	R.M	SH.A	M.R	M.A
2	05.05.19	ISSUED FOR CONSTRUCTION	M.M.A	SH.A	M.R	M.A
1	14.04.19	RE-ISSUED FOR DESIGN	M.M.A	SH.A/M.A	M.A.R	H.A
0	09.04.19	ISSUED FOR DESIGN	M.M.A	SH.A/M.A	M.A.R	H.A

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الهيئة العامة المصرية للبترول
EGPC

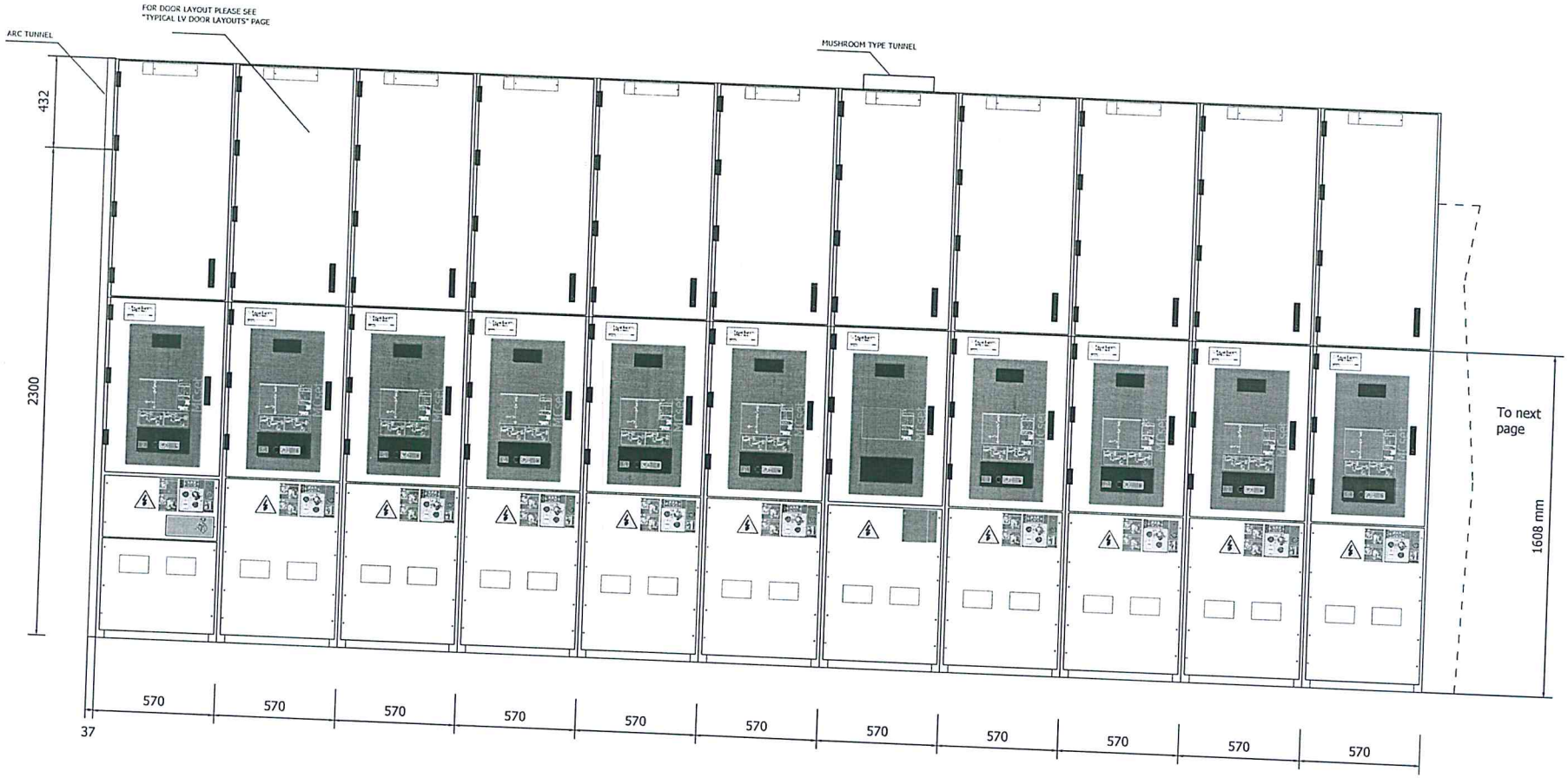
FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) لاجل الهيئة العامة المصرية للبترول

AT : AGROOD الموقع : مجرود

EGPC CRUDE OIL TANK FARM AGROOD AREA (MODULE-1) SUBSTATION ELECTRICAL EQUIPMENT LAYOUT

الشركة الهندسية للصناعات البترولية والكيماوية
Enppi إنبي
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

SCALE	ENPPI DRAWING NUMBER	SHEET	REVISION
1:100	01251-100-030-EEB-001	1 OF 1	3



CUBICLE NUMBER	Q-10A	Q-9A	Q-8A	Q-7A	Q-6A	Q-5A	DP-1	Q-4A	Q-3A	Q-2A	Q-1A
CUBICLE TYPE	AD1	AD1	AD1	AD1	AD1	AD1	AD1	AD1	AD1	AD1	AD1
CUBICLE NAME	030-SUB-PFC-1A SUBSTATION HV POWER FACTOR CORRECTION UNIT	SPARE TRANSFORMER FEEDER 1	SPARE MOTOR FEEDER 1	030-PM-06C CRUDE OIL HIGH PRESSURE SHIPPING PUMP MOTOR C	030-PM-06A CRUDE OIL HIGH PRESSURE SHIPPING PUMP MOTOR A	030-PM-01C CRUDE OIL BOOSTER PUMP MOTOR C	DUMMY CUBICLE	030-PM-01A CRUDE OIL BOOSTER PUMP MOTOR A	030-EPM3-TR-1 ELECTRICAL POWER MODULE-3 HV/LV DISTRIBUTION TRANSFORMER	030-EPM1-TR-1 ELECTRICAL POWER MODULE-1 HV/LV DISTRIBUTION TRANSFORMER	030-SUB-TR-1A SUBSTATION HV/LV DISTRIBUTION TRANSFORMER

For installation and civil engineering refer to leaflets:
07897303EN
07897301EN

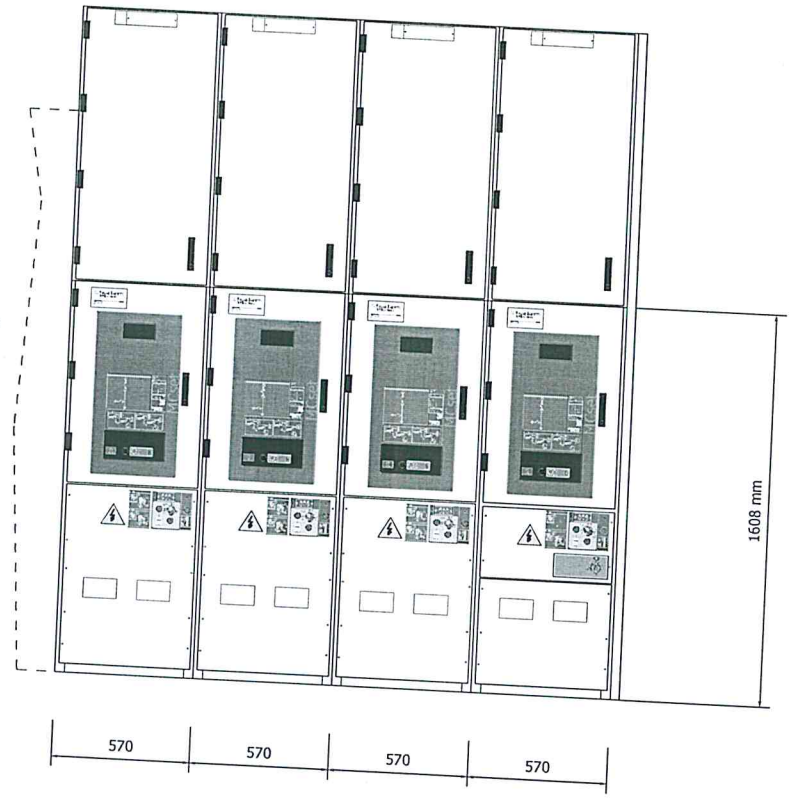
REVISIONS : A B C D

SCHNEIDER ELECTRIC , TURKEY

CUSTOMER NAME
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES
PROJECT DESCRIPTION
EGPC CRUDE OIL T[illegible]ARM PROJECT

PAGE DESCRIPTION
FRONT VIEW
DRAWING DESCRIPTION
SINGLE LINE DIAGRAM (Agrood A[illegible]0-SUB-HVSWG-6.6)

PROJECT
S20008.15
bFO OPP #
OP-190825-8818236
DRAWING NUMBER
S2000815-P4



CUBICLE NUMBER	Q-7B	Q-8B	Q-9B	Q-10B
CUBICLE TYPE	AD1	AD1	AD1	AD1
CUBICLE NAME	030-PP1-06D CRUDE OIL HIGH PRESSURE SHIPPING PUMP MOTOR D	SPARE MOTOR FEEDER 2	SPARE TRANSFORMER FEEDER 2	030-SUB-PFC-1B SUBSTATION HV POWER FACTOR CORRECTION UNIT

For installation and civil engineering refer to leaflets:
07897303EN
07897301EN

REVISIONS : A B C D

SCHNEIDER ELECTRIC, TURKEY

CUSTOMER NAME
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES
PROJECT DESCRIPTION
EGPC CRUDE OIL T[illegible]ARM PROJECT

PAGE DESCRIPTION
FRONT VIEW
DRAWING DESCRIPTION
SINGLE LINE DIAGRAM (Agrood A[illegible]0-SUB-HVSWG-6.6)

PROJECT
S20008.15
bFO OPP #
OP-190825-8818236
DRAWING NUMBER
S2000815-P4
PAGE
18 / 32

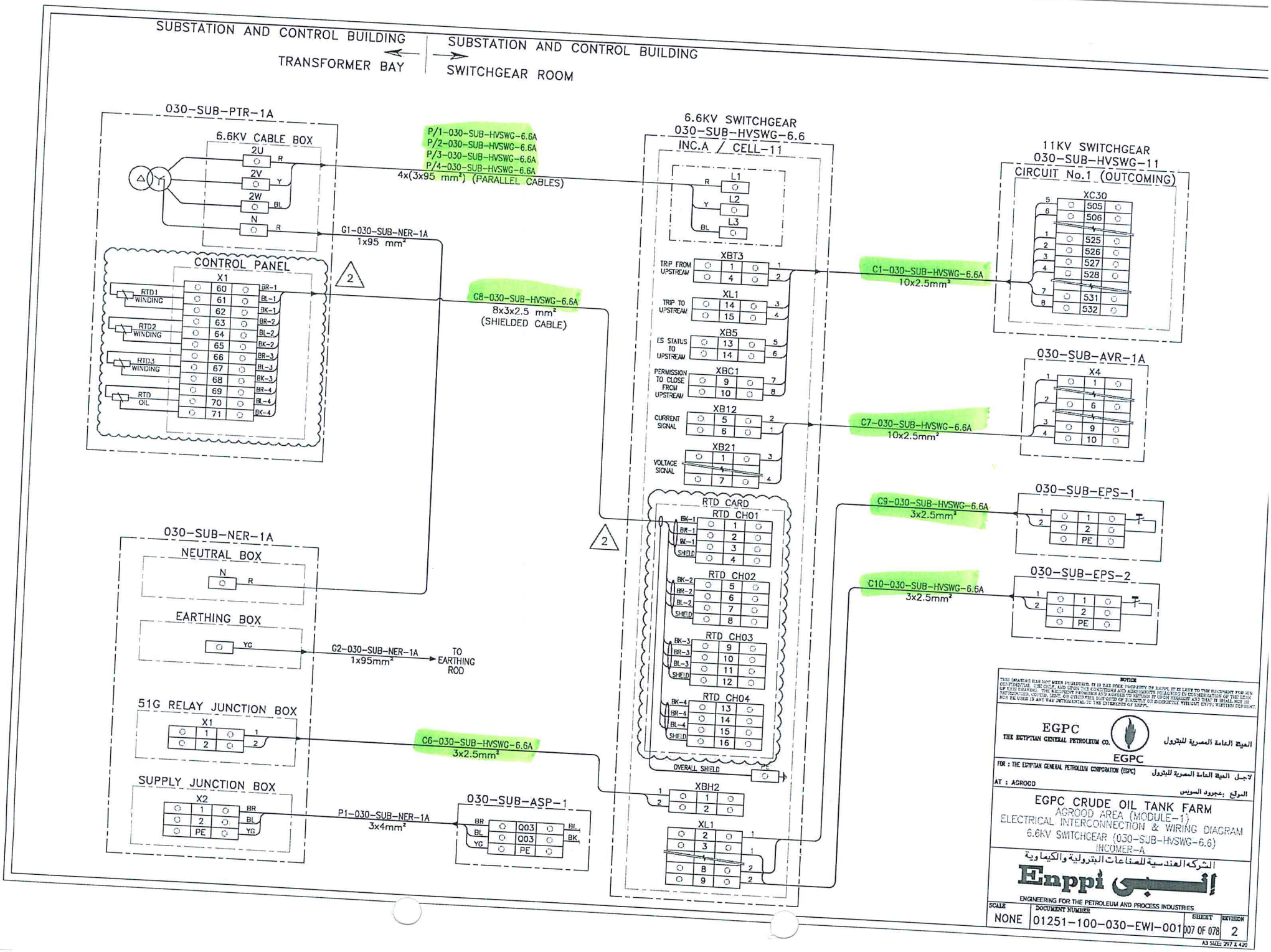
System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.03- Motor Datasheets

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.04- Electrical Cables Schedule

PAGE	Cable Mark	GL1	FROM	TO	GL2	CABLEService	Service Voltage	KW	Size	Type	L
8	P/1-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A	030-SUB-HVSWG-6.6, INC.A	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/2-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A	030-SUB-HVSWG-6.6, INC.A	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/3-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A	030-SUB-HVSWG-6.6, INC.A	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/4-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A	030-SUB-HVSWG-6.6, INC.A	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/1-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B	030-SUB-HVSWG-6.6, INC.B	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/2-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B	030-SUB-HVSWG-6.6, INC.B	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/3-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B	030-SUB-HVSWG-6.6, INC.B	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P/4-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B	030-SUB-HVSWG-6.6, INC.B	WP	HV POWER FEEDER	6600VAC	1600	3x95	3A	60
8	P1-030-SUB-HVSWG-6.6A	WP	030-SUB-ASP-1 (Q56)	030-SUB-HVSWG-6.6 (BC)	WP	3PH POWER FEEDER	400VAC	2	4x10	4B	40
8	P1-030-SUB-HVSWG-6.6B	WP	030-SUB-ASP-1 (Q57)	030-SUB-HVSWG-6.6 (BR)	WP	3PH POWER FEEDER	400VAC	2	4x10	4B	40
8	D-030-SUB-HVSWG-6.6A	WP	030-SUB-DCUPS-1	030-SUB-HVSWG-6.6 (BC)	WP	DC FEEDER	110VDC	2.5	3x16	3D	50
8	D-030-SUB-HVSWG-6.6B	WP	030-SUB-DCUPS-1	030-SUB-HVSWG-6.6 (BR)	WP	DC FEEDER	110VDC	2.5	3x16	3D	50
8	C1-030-SUB-HVSWG-6.6A	WP	030-SUB-HVSWG-11 (Q1A)	030-SUB-HVSWG-6.6 (INC.A)	WP	INTERTRIP			10x2.5	C1	45
8	C2-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	ALARM SIGNALS-1			10x2.5	C1	50
8	C3-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	ALARM SIGNALS-2			10x2.5	C1	50
8	C4-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	TRIP SIGNALS-1			10x2.5	C1	50
9	C5-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	TRIP SIGNALS-2			10x2.5	C1	50
9	C6-030-SUB-HVSWG-6.6A	WP	030-SUB-NER-1A (51G RELAY JB)	030-SUB-HVSWG-6.6 (INC.A)	WP	TRIP SIGNAL			3x2.5	C1	45
9	C7-030-SUB-HVSWG-6.6A	WP	030-SUB-HVSWG-6.6 (INC.A)	030-SUB-AVR-1A	WP	VOLTAGE & CURRENT SENSING			10x2.5	C1	35
9	C8-030-SUB-HVSWG-6.6A	WP	030-SUB-PTR-1A (CONTROL PANEL)	030-SUB-HVSWG-6.6 (INC.A)	WP	RTD (49W)			8x(3x2.5)	C2	50
9	C9-030-SUB-HVSWG-6.6A	WP	030-SUB-EPS-1	030-SUB-HVSWG-6.6 (INC.A)	WP	ESD			3x2.5	C1	25
9	C10-030-SUB-HVSWG-6.6A	WP	030-SUB-EPS-2	030-SUB-HVSWG-6.6 (INC.A)	WP	ESD			3x2.5	C1	55
9	C1-030-SUB-HVSWG-6.6B	WP	030-SUB-HVSWG-11 (Q1B)	030-SUB-HVSWG-6.6 (INC.B)	WP	INTERTRIP			10x2.5	C1	45
9	C2-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	ALARM SIGNALS-1			10x2.5	C1	45
9	C3-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	ALARM SIGNALS-2			10x2.5	C1	45
9	C4-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	TRIP SIGNALS-1			10x2.5	C1	45
9	C5-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B (CONTROL PANEL)	030-SUB-HVSWG-6.6 (BR)	WP	TRIP SIGNALS-2			10x2.5	C1	45
9	C6-030-SUB-HVSWG-6.6B	WP	030-SUB-NER-1B (51G RELAY JB)	030-SUB-HVSWG-6.6 (INC.B)	WP	TRIP SIGNAL			3x2.5	C1	40
9	C7-030-SUB-HVSWG-6.6B	WP	030-SUB-HVSWG-6.6 (INC.B)	030-SUB-AVR-1B	WP	VOLTAGE & CURRENT SENSING			10x2.5	C1	30
9	C8-030-SUB-HVSWG-6.6B	WP	030-SUB-PTR-1B (CONTROL PANEL)	030-SUB-HVSWG-6.6 (INC.B)	WP	RTD (49W)			8x(3x2.5)	C2	45
9	C9-030-SUB-HVSWG-6.6B	WP	030-SUB-EPS-1	030-SUB-HVSWG-6.6 (INC.B)	WP	ESD			3x2.5	C1	25
9	C10-030-SUB-HVSWG-6.6B	WP	030-SUB-EPS-2	030-SUB-HVSWG-6.6 (INC.B)	WP	ESD			3x2.5	C1	55


SUBSTATION AND CONTROL BUILDING
TRANSFORMER BAY
SUBSTATION AND CONTROL BUILDING
SWITCHGEAR ROOM
030-SUB-PTR-1A
6.6KV CABLE BOX
2U
2V
2W
N
R
Y
BL
R
P/1-030-SUB-HVSWG-6.6A
P/2-030-SUB-HVSWG-6.6A
P/3-030-SUB-HVSWG-6.6A
P/4-030-SUB-HVSWG-6.6A
4x(3x95 mm²) (PARALLEL CABLES)
G1-030-SUB-NER-1A
1x95 mm²
CONTROL PANEL
X1
RTD1 WINDING
RTD2 WINDING
RTD3 WINDING
RTD OIL
60 BR-1
61 BL-1
62 BK-1
63 BR-2
64 BL-2
65 BK-2
66 BR-3
67 BL-3
68 BK-3
69 BR-4
70 BL-4
71 BK-4
2
C8-030-SUB-HVSWG-6.6A
8x3x2.5 mm²
(SHIELDED CABLE)
6.6KV SWITCHGEAR
030-SUB-HVSWG-6.6
INC.A / CELL-11
L1
L2
L3
XBT3
TRIP FROM UPSTREAM
XL1
TRIP TO UPSTREAM
XB5
ES STATUS TO UPSTREAM
XBC1
PERMISSION TO CLOSE FROM UPSTREAM
XB12
CURRENT SIGNAL
XB21
VOLTAGE SIGNAL
RTD CARD
RTD CH01
RTD CH02
RTD CH03
RTD CH04
OVERALL SHIELD
C1-030-SUB-HVSWG-6.6A
10x2.5mm²
11KV SWITCHGEAR
030-SUB-HVSWG-11
CIRCUIT No.1 (OUTCOMING)
XC30
505
506
525
526
527
528
531
532
C7-030-SUB-HVSWG-6.6A
10x2.5mm²
030-SUB-AVR-1A
X4
C9-030-SUB-HVSWG-6.6A
3x2.5mm²
030-SUB-EPS-1
C10-030-SUB-HVSWG-6.6A
3x2.5mm²
030-SUB-EPS-2
030-SUB-NER-1A
NEUTRAL BOX
EARTHING BOX
YG
G2-030-SUB-NER-1A
1x95mm²
TO EARTHING ROD
51G RELAY JUNCTION BOX
X1
C6-030-SUB-HVSWG-6.6A
3x2.5mm²
SUPPLY JUNCTION BOX
X2
P1-030-SUB-NER-1A
3x4mm²
030-SUB-ASP-1
XBH2
XL1
NOTICE
EGPC
THE EGYPTIAN GENERAL PETROLEUM CO.
الهيئة العامة المصرية للبترول
FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC)
لحساب الهيئة العامة المصرية للبترول
AT : AGROOD
الموقع :عجرود السويس
EGPC CRUDE OIL TANK FARM
AGROOD AREA (MODULE-1)
ELECTRICAL INTERCONNECTION & WIRING DIAGRAM
6.6KV SWITCHGEAR (030-SUB-HVSWG-6.6)
INCOMER-A
الشركه الهندسية للصناعات البترولية والكيماوية
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SCALE
NONE
DOCUMENT NUMBER
01251-100-030-EWI-001
SHEET
007 OF 078
REVISION
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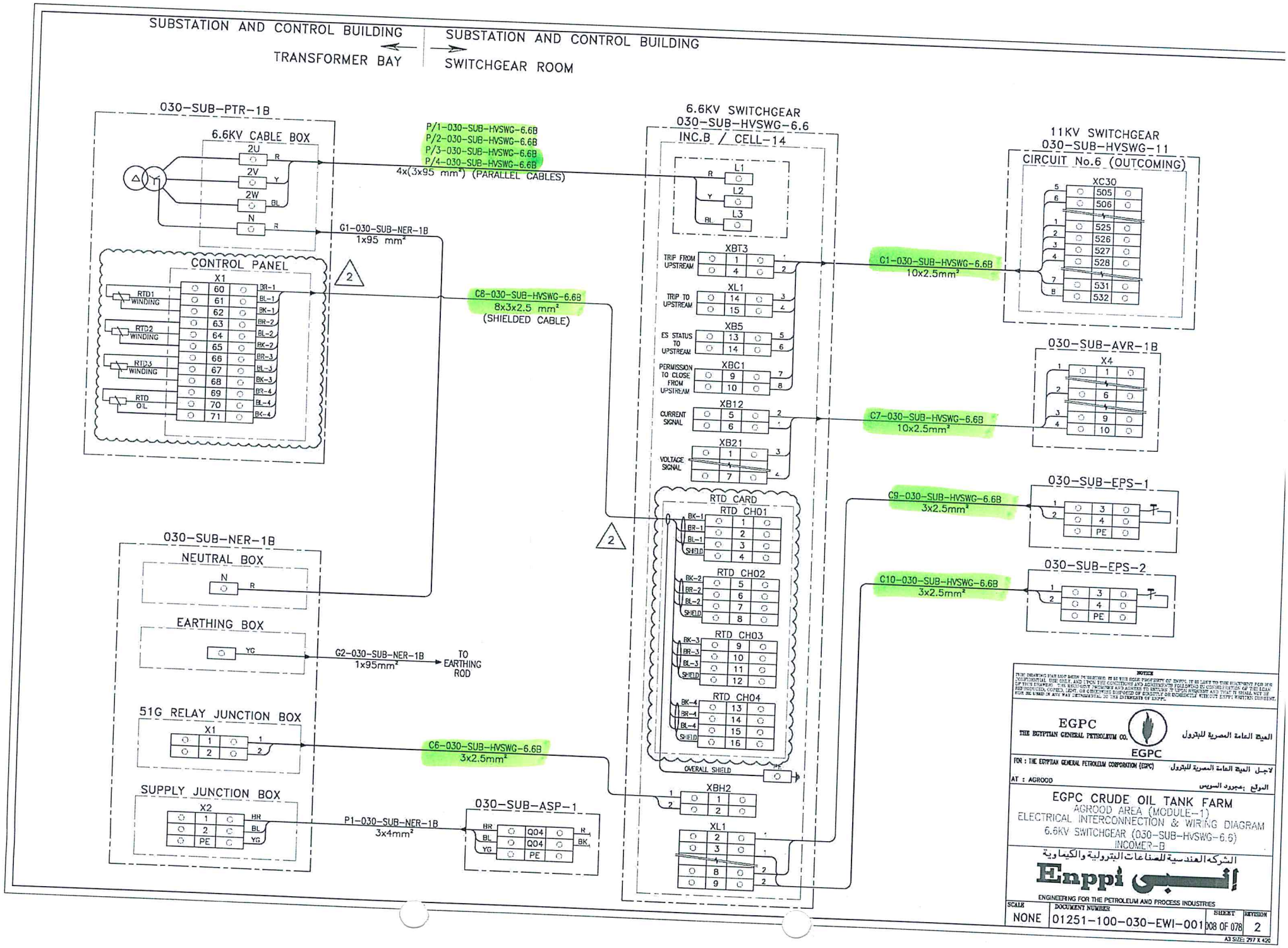
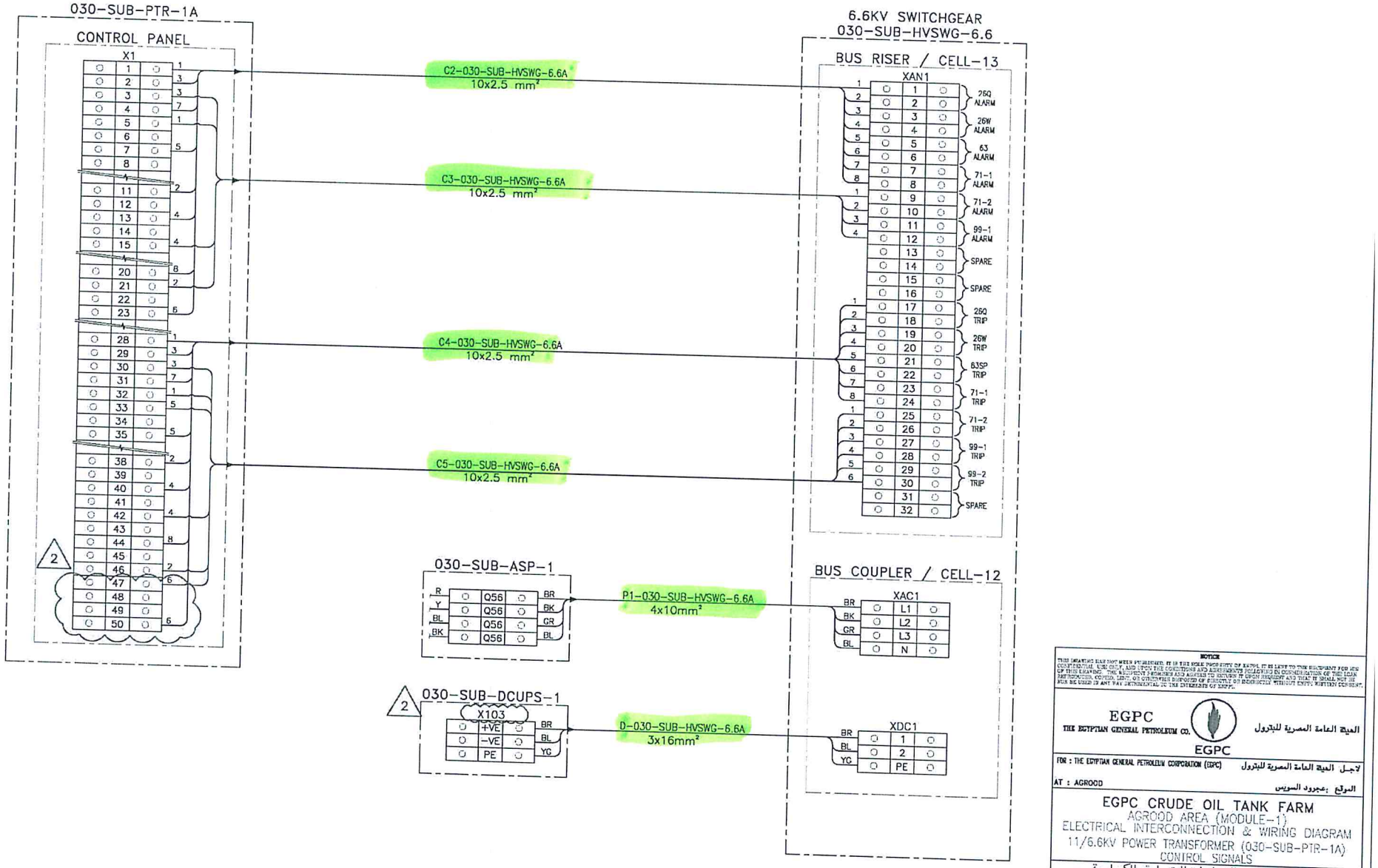
A3 SIZE: 297 x 420


SUBSTATION AND CONTROL BUILDING
TRANSFORMER BAY
SUBSTATION AND CONTROL BUILDING
SWITCHGEAR ROOM
030-SUB-PTR-1B
6.6KV CABLE BOX
2U
2V
2W
N
R
Y
BL
P/1-030-SUB-HVSWG-6.6B
P/2-030-SUB-HVSWG-6.6B
P/3-030-SUB-HVSWG-6.6B
P/4-030-SUB-HVSWG-6.6B
4x(3x95 mm²) (PARALLEL CABLES)
G1-030-SUB-NER-1B
1x95 mm²
CONTROL PANEL
X1
RTD1 WINDING
RTD2 WINDING
RTD3 WINDING
RTD OIL
C8-030-SUB-HVSWG-6.6B
8x3x2.5 mm²
(SHIELDED CABLE)
6.6KV SWITCHGEAR
030-SUB-HVSWG-6.6
INC.B / CELL-14
L1
L2
L3
XBT3
TRIP FROM UPSTREAM
XL1
TRIP TO UPSTREAM
XB5
ES STATUS TO UPSTREAM
XBC1
PERMISSION TO CLOSE FROM UPSTREAM
XB12
CURRENT SIGNAL
XB21
VOLTAGE SIGNAL
RTD CARD
RTD CH01
RTD CH02
RTD CH03
RTD CH04
OVERALL SHIELD
XBH2
XL1
C1-030-SUB-HVSWG-6.6B
10x2.5mm²
11KV SWITCHGEAR
030-SUB-HVSWG-11
CIRCUIT No.6 (OUTCOMING)
XC30
C7-030-SUB-HVSWG-6.6B
10x2.5mm²
030-SUB-AVR-1B
X4
C9-030-SUB-HVSWG-6.6B
3x2.5mm²
030-SUB-EPS-1
C10-030-SUB-HVSWG-6.6B
3x2.5mm²
030-SUB-EPS-2
030-SUB-NER-1B
NEUTRAL BOX
EARTHING BOX
G2-030-SUB-NER-1B
1x95mm²
TO EARTHING ROD
51G RELAY JUNCTION BOX
C6-030-SUB-HVSWG-6.6B
3x2.5mm²
SUPPLY JUNCTION BOX
P1-030-SUB-NER-1B
3x4mm²
030-SUB-ASP-1
NOTICE
EGPC
THE EGYPTIAN GENERAL PETROLEUM CO.
الهيئة العامة المصرية للبترول
FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC)
AT : AGROOD
EGPC CRUDE OIL TANK FARM
AGROOD AREA (MODULE-1)
ELECTRICAL INTERCONNECTION & WIRING DIAGRAM
6.6KV SWITCHGEAR (030-SUB-HVSWG-6.6)
INCOMER-B
الشركة العندسية للصناعات البترولية والكيماوية
Enppi
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES
SCALE
NONE
DOCUMENT NUMBER
01251-100-030-EWI-001
SHEET
008 OF 078
REVISION
2
A3 SIZE: 297 X 420

SUBSTATION AND CONTROL BUILDING
TRANSFORMER BAY

SUBSTATION AND CONTROL BUILDING
SWITCHGEAR ROOM



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EGPC

FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) لاجل الهيئة العامة المصرية للبترول

AT : AGROOD الموقع :عجرود السويس

EGPC CRUDE OIL TANK FARM
AGROOD AREA (MODULE-1)
ELECTRICAL INTERCONNECTION & WIRING DIAGRAM
11/6.6KV POWER TRANSFORMER (030-SUB-PTR-1A)
CONTROL SIGNALS

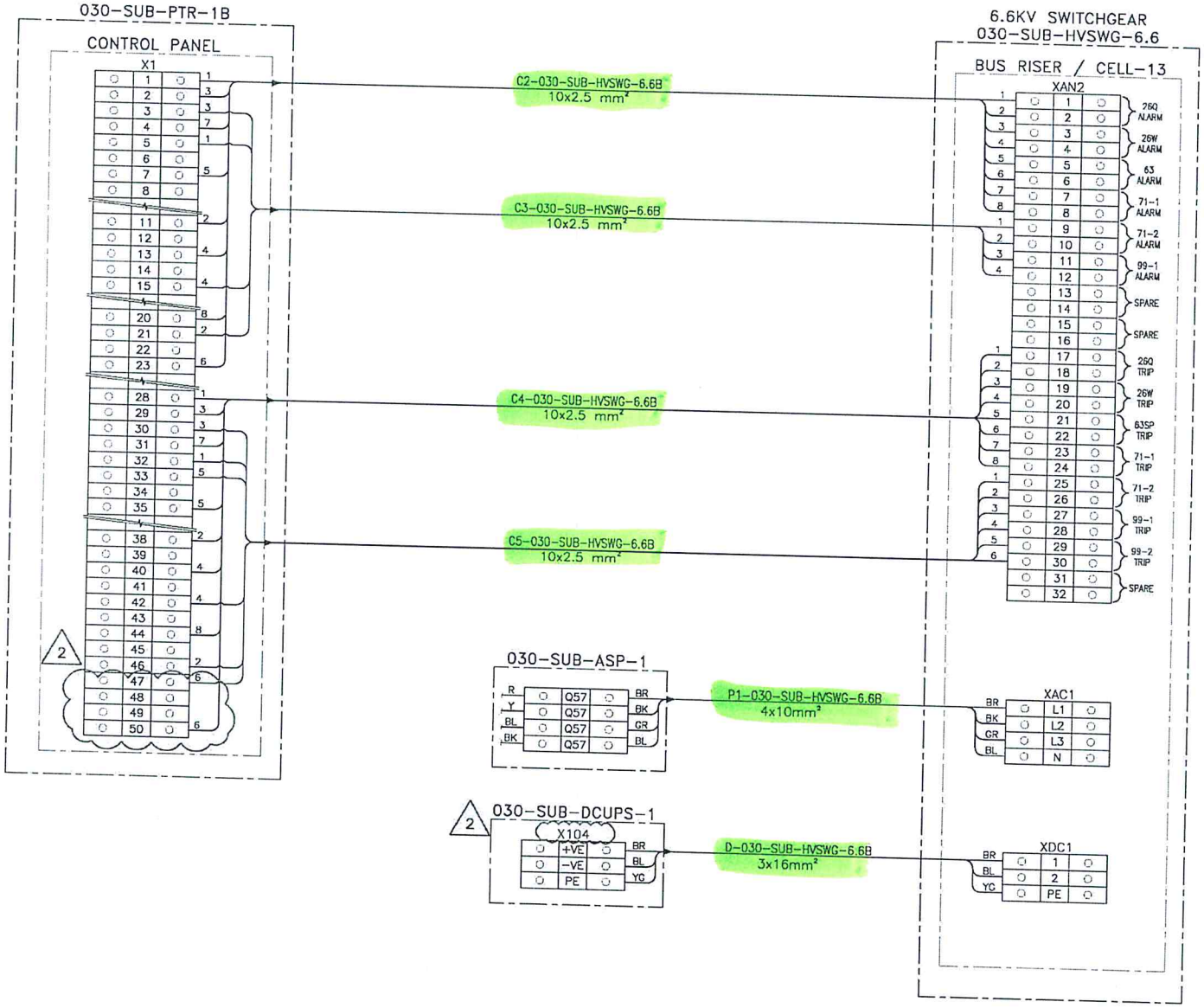
الشركه الهندسية للصناعات البترولية والكيماوية
Enppi إنبي
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

SCALE	DOCUMENT NUMBER	SHEET	REVISION
NONE	01251-100-030-EWI-001	009 OF 078	1

A3 SIZE: 297 X 420

SUBSTATION AND CONTROL BUILDING
TRANSFORMER BAY

SUBSTATION AND CONTROL BUILDING
SWITCHGEAR ROOM



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الهيئة العامة المصرية للبترول
EGPC

FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) لاجل الهيئة العامة المصرية للبترول

AT : AGROOD الموقع :عجرود السويس

EGPC CRUDE OIL TANK FARM
AGROOD AREA (MODULE-1)
ELECTRICAL INTERCONNECTION & WIRING DIAGRAM
11/6.6KV POWER TRANSFORMERS (030-SUB-PTR-1B)
CONTROL SIGNALS

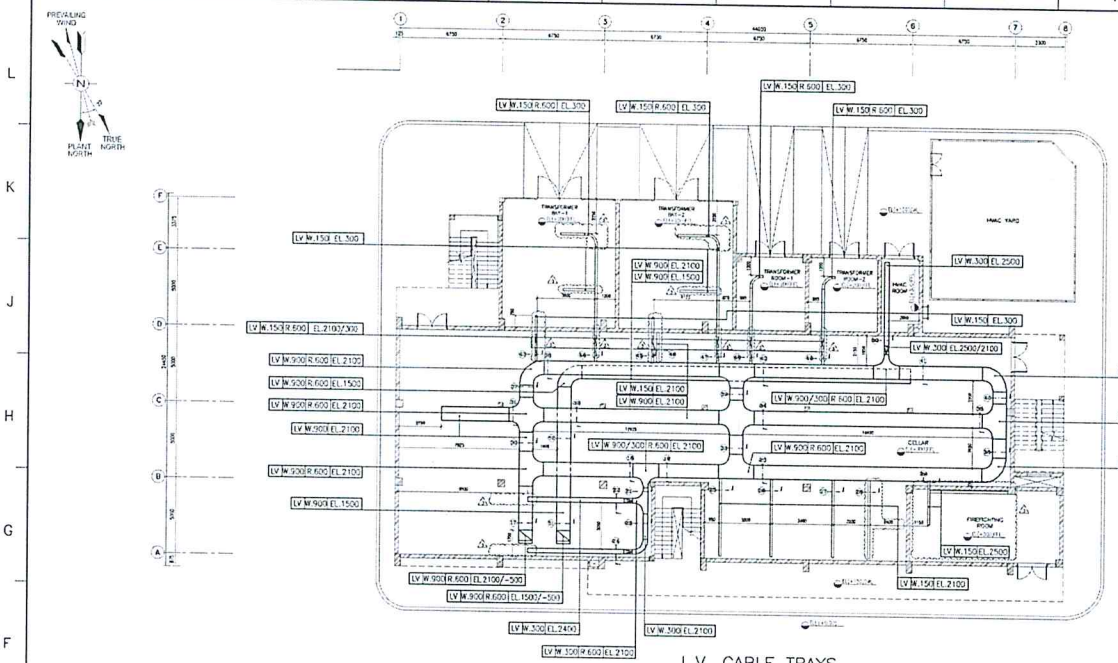
الشركه الهندسية للصناعات البترولية والكيماوية
Enppi إنبي
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

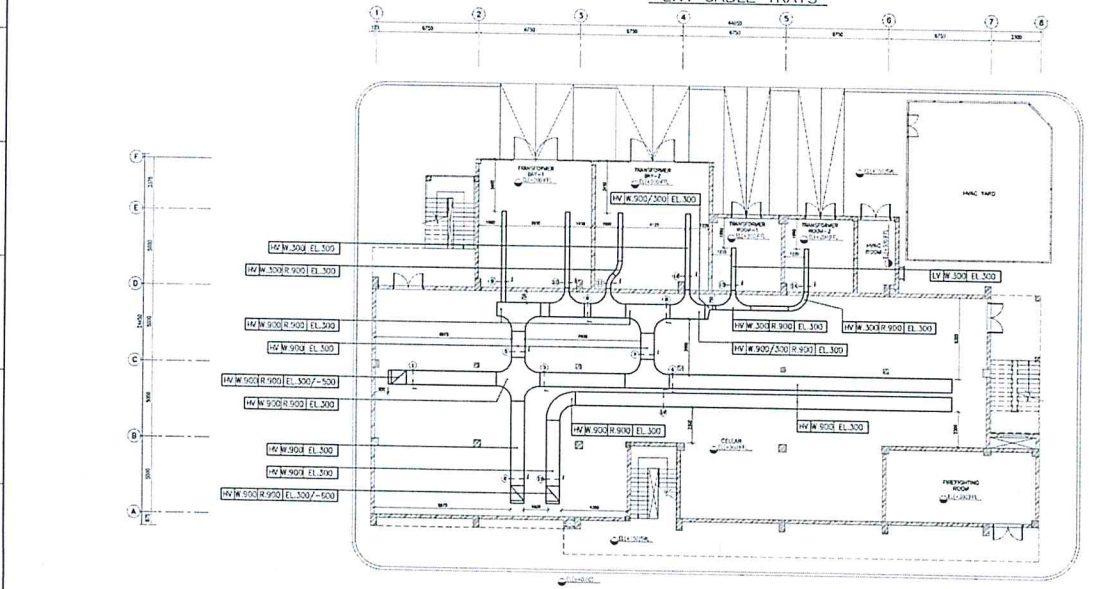
SCALE	DOCUMENT NUMBER	SHEET	REVISION
NONE	01251-100-030-EWI-001	010 OF 078	2

A3 SIZE: 297 X 420

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.05- Electrical Cables Laying Certificates





REFERENCE DRAWINGS AND DOCUMENTS

01251-100-030-CBD-221	SUBSTATION & CONTROL ROOM CELLAR FLOOR PLAN
01251-100-030-CBD-202	SUBSTATION & CONTROL ROOM FOUNDATION PLAN & DETAILS
01251-100-030-EEB-001	SUBSTATION ELECTRICAL EQUIPMENT LAYOUT
01251-100-030-EES-003	OUTDOOR ELECTRICAL CABLE SECTIONS
01251-100-030-EES-004	SUBSTATION ELECTRICAL CABLE SECTIONS
01251-100-030-ECL-001	OUTDOOR ELECTRICAL CABLE ROUTING LAYOUT
01251-100-030-ECS-001	AGROOD AREA (MODULE-1) ELECTRICAL CABLE SCHEDULE
01251-100-000-EDB-001	ELECTRICAL DESIGN BASIS

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.
2. FOR BOTTOM-ENTRY SUBSTATIONS (HAVING TWO FLOORS), CABLES SHOULD ENTER SWITCHGEAR ROOM VIA THE FOLLOWING MEANS:
   - VERMIN PROOF GLAND PLATES, WHICH ARE BOTTOM PARTS OF SWITCHGEARS AND PANELS.
   - SEALING EXTENSION CABLE BOXES (WHICH SHALL BE INSTALLED INSIDE CELLAR FLOOR, AND JUST UNDER SWITCHGEAR OR PANEL), IN CASE THAT AREA REQUIRED TO ACCOMMODATE CABLES GLANDS HOLES ARE EXCEEDING DIMENSIONS OF THE GLAND PLATES.
3. PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED IN SUCH A WAY THAT THE ORIGINAL FIRE RATING IS RESTORED. AN APPROVED FIRE RATED MORTAR SHALL BE USED. THE SECTION OF CABLES INSIDE THE AREA TO BE SEALED SHALL BE CAREFULLY CLEANED.
4. CABLES SHALL BE IDENTIFIED WITH STAINLESS STEEL MARKERS ATTACHED TO EACH CABLE AND STAMPED WITH THE CABLE TAG AT THE FOLLOWING LOCATIONS:
   4.1 WITH MAXIMUM INTERVALS OF 30 METERS FOR ABOVEGROUND CABLES.
   4.2 WHERE CABLES CHANGES THEIR DIRECTIONS
   4.3 AT BOTH CABLE ENDS.
5. ALL CABLES IN TRAYS SHALL BE GROUPED ACCORDING TO VOLTAGE, INSULATION CLASS AND FUNCTION AS FOLLOWING:
   5.1 HIGH VOLTAGE CABLES SHALL RUN IN SEPARATE CABLE TRAYS.
   5.2 CONTROL CABLES AND LOW VOLTAGE CABLES MAY RUN IN THE SAME CABLE TRAY.
   5.3 LIGHTING CABLES AND LOW VOLTAGE CABLES MAY RUN IN THE SAME CABLE TRAY.
6. MAXIMUM ALLOWABLE FILL AREA ELECTRICAL CABLES INSTALLED IN CABLE TRAYS SHALL BE 80%.
7. CABLES INSTALLED ON TRAYS SHALL BE LAID NEATLY IN PARALLEL RUNS WITH NO CROSSING OVER OF CABLES, EXCEPT AS APPROVED BY CLIENT.
8. MULTI-CORE CABLES SHALL BE FIXED WITH HEAVY DUTY NYLON CABLE-TIES TO RUNGS OF CABLE TRAYS WITH MAXIMUM SPACING 1000MM FOR HORIZONTAL RUN, AND 500MM FOR VERTICAL RUN.
9. CABLE TRAYS SHALL BE INSTALLED AS A COMPLETE SYSTEM. CABLE TRAY SYSTEM SHALL NOT HAVE MECHANICALLY DISCONTINUOUS SEGMENTS OF CABLE TRAY RUNS.
10. ARMORED CABLES MAY BE EXTENDED FROM CABLE TRAYS TO EQUIPMENT.
11. CABLE TRAYS RUN IN INDOOR AREAS SHALL NOT HAVE COVERS.
12. MINIMUM VERTICAL CLEARANCE BETWEEN CABLE TRAYS SHALL BE 400MM.
13. MINIMUM CROSSING DISTANCE BETWEEN CABLE TRAYS SHALL BE 150MM.
14. CONSTRUCTION CONTRACTOR RESPONSIBILITY SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
   14.1 CABLES CUTTING SHALL BE CARRIED OUT PREFERABLY AFTER ADDURATE POSITIONING, IN ANY OTHER CASE THE CUTTING LENGTH SHALL BE DETERMINED BY ACCURATE ROUTE MEASURE BEFORE CUTTING.
   14.2 PULLING STRESSES PERMITTED DURING INSTALLATION AND OPERATION SHALL BE IN ACCORDANCE WITH THOSE ESTABLISHED BY CABLES MANUFACTURER.
   14.3 ALL CABLE BENDS SHALL BE SO MADE THAT THE CABLE WILL NOT BE DAMAGED. THE MINIMUM RADIUS OF THE INSIDE OF THE BEND SHALL NOT BE LESS THAN TWELVE TIMES THE OVERALL CABLE DIAMETER AND NOT LESS THAN THAT RECOMMENDED BY THE CABLE MANUFACTURER.
   14.4 CONSTRUCTION CONTRACTOR SHALL PROVIDE MARK-UP DRAWING FOR CABLE ROUTING LAYOUTS.
   14.5 THE FOLLOWING ELECTRICAL CONSUMABLE MATERIALS SHALL BE IN CONSTRUCTION CONTRACTOR SCOPE OF SUPPLY:
      14.5.1. STAINLESS STEEL CABLE MARKERS
      14.5.2. WIRES MARKERS
      14.5.3. CABLES TIES.
      14.5.4. PIN/FORK/RING TERMINALS FOR CONTROL CABLES
      14.5.5. STAINLESS STEEL BOLTS/U-BOLTS/WASHERS/NUTS
      14.5.6. HOG STEEL SUPPORTS & THREADED RODS FOR FIXATION OF CABLE TRAYS.
      14.5.7. HOG CLAMPS FOR STEEL CONDUITS.
      14.5.8. CABLE CLAMPS.
      14.5.9. FIRE RATED FOAM FOR SEALING SUBSTATION/BATTERY ROOM OPENINGS.
15. ALL CABLE SECTIONS NUMBERS ARE CHANGED.

IDENTIFICATION

- FOR IDENTIFICATION SEE DRAWING NO. 01251-100-030-ECB-001 SHEET NO. 1 OF 2.

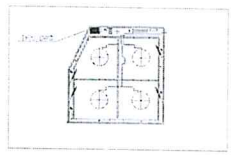
REV	DATE	DESCRIPTION	BY	CHECKED	DESIGNED	APPROVED
3	08.09	RE-ISSUED FOR CONSTRUCTION	P.M	SH.A	M.R	M.A
2	05.09	ISSUED FOR CONSTRUCTION	A.S.M	SH.A	A.S.M	M.A
1	11.08	RE-ISSUED FOR DESIGN	A.S.M	SH.A/M.A	A.S.M	M.A
0	10.08	ISSUED FOR DESIGN	A.S.M	SH.A/M.A	A.S.M	M.A

EGPC
THE EGYPTIAN GENERAL PETROLEUM CO.
الهيئة العامة المصرية للبترول
EGPC

FOR : THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) لأجل الهيئة العامة المصرية للبترول

AT : AGROOD الموقع : عجرود

KEY PLAN



SCALE = 1 : 150

EGPC CRUDE OIL TANK FARM
AGROOD AREA (MODULE-1)
SUBSTATION ELECTRICAL CABLE ROUTING LAYOUT

التركيبي الهندسي للصناعات البترولية والكيماوية
Enppi إنبي
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

SCALE	ENPPI DRAWING NUMBER	SHEET	REVISION
1:150	01251-100-030-ECB-001	2 OF 2	3

A1(841.00MMx594.00MM)

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.06- Electrical Cables Testing Certificates

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PETROJET

EGPC CRUDE OIL TANK FARM

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INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

SYSTEM NO.:

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SHEET NO
RFI-ITT206		ITR-EL-0006A	ELECTRICAL	

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
		66K, 220K, V	5kv	

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	PHASE TO PHASE "M.Ohm"			PHASE TO NUETRAL"M.Ohm"			PHASES & NUETRAL TO ARMOR "M.Ohm"				RESULT	
				BR-BK	BR-GR	BK-GR	BR-B	BK-B	GR-B	BR-ARM	BK-ARM	GR-ARM	B-ARM	Pass	FAIL
1	P/1-030-SUB-PTR-1A	3x95	✓				0.✓							✓	
2	P/2-030-SUB-PTR-1A	3x95	✓				0.✓							✓	
3	P/3-030-SUB-PTR-1A	3x95	✓				0.✓							✓	
4	G1-030-SUB-NER-1A	1x95	✓				0.✓							✓	
5	P/1-030-SUB-PTR-1B	3x95	✓				0.✓							✓	
6	P/2-030-SUB-PTR-1B	3x95	✓				0.✓							✓	
7	P/3-030-SUB-PTR-1B	3x95	✓				0.✓							✓	
8	G1-030-SUB-NER-1B	1x95	✓				0.✓							✓	
9	P/1-030-SUB-HVSWG-6.6A	3x95	✓				0.✓							✓	
10	P/2-030-SUB-HVSWG-6.6A	3x95	✓				0.✓							✓	
11	P/3-030-SUB-HVSWG-6.6A	3x95	✓				0.✓							✓	
12	P/4-030-SUB-HVSWG-6.6A	3x95	✓				0.✓							✓	
13	P/1-030-SUB-HVSWG-6.6B	3x95	✓				0.✓							✓	
14	P/2-030-SUB-HVSWG-6.6B	3x95	✓				0.✓							✓	
15	P/3-030-SUB-HVSWG-6.6B	3x95	✓				0.✓							✓	
16	P/4-030-SUB-HVSWG-6.6B	3x95	✓				0.✓							✓	
17	P-030-SUB-TR-1A	3x70	✓				0.✓							✓	
18	P-030-SUB-TR-1B	3x70	✓				0.✓							✓	
19	P-030-EPM2-TR-1	3x70	✓				0.✓							✓	

Remarks :-

Referance :-

	PETROJET	ENPPI	PMC
NAME :		Islam Sherif	
SIGNATURE			M. Omar
DATE			

Enppi PETROJET | EGPC CRUDE OIL TANK FARM | EGPC

INSPECTION AND TEST REPORT FOR

HI POT INSULATION TEST

SYSTEM NO.:

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	ITR NUMBER	DISPLINE	SHEET NO
RFI .206		ITR-EL-0008		1 OF 1

Item/Tag NO.					
Type :-		Core:		Size:	

NO.	Description of check	RESUNT		
		ACCEPT	REJECT	N/A.
1	No damage of cable has found and maintain insulation resistance	✓		
2	Correct cable type/size/ installed as per approved drawing	✓		
3	Calibration test certificate of testing equipment to be checked.	✓		

Continuity Test : ☑ ACCEPT ☐ REJECT ☐ N/A.

Test Equipment List

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	

Insulation Resistance Test MΩ

PHASE TO PHASE			PHASES TO ARMOR		
BR-BK	BR-GR	BR-GR	BR-ARM	BK-ARM	GR-ARM
ol	ol	ol	ol	ol	ol

Hi-Pot test

Phase BR Test Voltage (..1.M.. kV)

Phase	TEST VOLTAGE	TIME	CURRENT	
ARM,BK,GR_BR		15 Min	385 MA	

Phase BK Test Voltage (..1.M.. kV)

Phase	TEST VOLTAGE	TIME	CURRENT	
ARM,BR,GR_BK		15 Min	405 MA	

Phase GR Test Voltage (..1.M.. kV)

Phase	TEST VOLTAGE	TIME	CURRENT	
ARM,BR,BK_GR		15 Min	310 MA	

Insulation Resistance Test MΩ

PHASE TO PHASE			PHASES TO ARMOR		
BR-BK	BR-GR	BR-GR	BR-ARM	BK-ARM	GR-ARM

Remarks :

INSPECTION RESULTS: ☑ APPROVEI ☐ REJECT ☐ APPROVED W/ COMMENT

	PETROJET	ENPPI	PMC
NAME :		Islam Sherif	
SIGNATURE			M. Omar
DATE			

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EGPC CRUDE OIL TANK FARM

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INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SYSTEM NO.:
PTJ-ELE-RFI-	10/04/2021	ITR-EL-0006A	ELECTRICAL	SHEET NO

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	400	1000	SUBSTATION

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	PHASE TO PHASE			PHASE TO NUETRAL"M.Ohm"			PHASES & NUETRAL TO ARMOR "M.Ohm"				RESULT	
				BR-BK	BR-GR	BK-GR	BR-B	BK-B	GR-B	BR-ARM	BK-ARM	GR-ARM	B-ARM	Pass	FAIL
1	P1-030-SUB-HVSWG-6.6A	4x10	✓	o.l	o.l	o.l	o.l							✓	
2	P1-030-SUB-HVSWG-6.6B	4x10	✓	o.l	o.l	o.l	o.l							✓	
3	D-030-SUB-HVSWG-6.6A	3x16	✓	o.l										✓	
4	D-030-SUB-HVSWG-6.6B	3x16	✓	o.l										✓	
5	P1-030-SUB-PFC-1A	3x10	✓	o.l										✓	
6	D-030-SUB-PFC-1A	3x10	✓	o.l										✓	
7	P1-030-SUB-PFC-1B	3x10	✓	o.l										✓	
8	D-030-SUB-PFC-1B	3x10	✓	o.l										✓	
9	P1-030-PLC-SC-001	3x4	✓	o.l										✓	
10	P2-030-PLC-SC-001	3x4	✓	o.l										✓	
11	P1-030-PLC-SC-002	3x4	✓	o.l										✓	
12	P2-030-PLC-SC-002	3x4	✓	o.l										✓	
13	P1-030-PLC-SC-003	3x4	✓	o.l										✓	
14	P2-030-PLC-SC-003	3x4	✓	o.l										✓	
15	P1-030-PLC-SC-004	3x4	✓	o.l										✓	
16	P2-030-PLC-SC-004	3x4	✓	o.l										✓	

Remarks :-

Referance :-

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

Enppi
PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SYSTEM NO.: / SHEET NO
PTJ-ELE-RFI-	10/04/2021	ITR-EL-0006B	ELEC	

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	24	500	

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	pair conductors	conductors to armor	Shield to Shield	All Conductors-GND	Overall Shield -GND	Armor -GND	RESULT	
										Pass	FAIL
1	C7-030-SUB-HVSWG-	10x2.5	✓	500 ✓				>500 MΩ		✓	
2	C7-030-SUB-HVSWG-	10x2.5	✓	500 ✓				>500 MΩ		✓	
3	C1-030-SUB-PFC-1A	3x2.5	✓	500 ✓				>500 MΩ		✓	
4	C2-030-SUB-PFC-1A	12x2.5	✓	500 ✓				>500 MΩ		✓	
5	C1-030-SUB-PFC-1B	3x2.5	✓	500 ✓				>500 MΩ		✓	
6	C2-030-SUB-PFC-1B	12x2.5	✓	500 ✓				>500 MΩ		✓	
7	C3-030-SUB-LVSWG-1A	10x2.5	✓	500 ✓				>500 MΩ		✓	
8	C3-030-SUB-LVSWG-1B	10x2.5	✓	500 ✓				>500 MΩ		✓	
9	C3-030-SUB-ACUPS-1	1x3x1.5	✓	500 ✓				>500 MΩ		✓	
10	C4-030-SUB-ACUPS-1	1x3x1.5	✓	500 ✓				>500 MΩ		✓	
11	C3-030-SUB-DCUPS-1	1x3x1.5	✓	500 ✓				>500 MΩ		✓	
12	C4-030-SUB-DCUPS-1	1x3x1.5	✓	500 ✓				>500 MΩ		✓	

Remarks :-

Referance

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SYSTEM NO.:
PTJ-ELE-RFI- 208	02/06/2021	ITR-EL-0006A	ELECTRICAL	SHEET NO

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	400	1000	SUBSTATION

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	PHASE TO PHASE			PHASE TO NUETRAL "M.Ohm"			PHASES & NUETRAL TO ARMOR "M.Ohm"				RESULT	
				BR-BK	BR-GR	BK-GR	BR-B	BK-B	GR-B	BR-ARM	BK-ARM	GR-ARM	B-ARM	Pass	FAIL
1	P1-030-SUB-TR-1A	3x10	✓	0.L	0.L	0.L								✓	
2	P1-030-SUB-TR-1B	3x10	✓	0.L	0.L	0.L								✓	
3	P1-030-LPDP-CR-1	3x16	✓	0.L	0.L	0.L								✓	
4	P1-030-LPDP-CR-2	3x16	✓	0.L	0.L	0.L								✓	
5	P1-030-LPDP-CR-3	3x16	✓	0.L	0.L	0.L								✓	
6	P1-030-SUB-NER-1A	3x4	✓	0.L	0.L	0.L								✓	
7	P1-030-SUB-NER-1B	3x4	✓	0.L	0.L	0.L								✓	
8	P1-030-SUB-PTR-1A	4x10	✓	0.L	0.L	0.L								✓	
9	P2-030-SUB-PTR-1A	4x10	✓	0.L	0.L	0.L								✓	
10	P1-030-SUB-PTR-1B	4x10	✓	0.L	0.L	0.L								✓	
11	P2-030-SUB-PTR-1B	4x10	✓	0.L	0.L	0.L								✓	
12	P1-030-SUB-HVSWG-11	4x4	✓	0.L	0.L	0.L								✓	
13															
14															
15															
16															

Remarks :-

Referance :-

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hagsen		
SIGNATURE			
DATE	6/6/2021		

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SYSTEM NO.:
PTJ-ELE-RFI- 208	02/06/2021	ITR-EL-0006B	ELEC	SHEET NO

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	24	500	

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	pair conductors	conductors to armor	Shield to Shield	All Conductors-GND	Overall Shield -GND	Armor -GND	RESULT	
										Pass	FAIL
1	C1-030-SUB-AVR-1A	10x2.5	✓	O.L			O.L			✓	
2	C2-030-SUB-PTR-1A	10x2.5	✓	O.L			O.L			✓	
3	C1-030-SUB-AVR-1B	10x2.5	✓	O.L			O.L			✓	
4	C2-030-SUB-PTR-1B	10x2.5	✓	O.L			O.L			✓	
5	C1-030-SUB-HVSWG-6.6A	10x2.5	✓	O.L			O.L			✓	
6	C2-030-SUB-HVSWG-6.6A	10x2.5	✓	O.L			O.L			✓	
7	C3-030-SUB-HVSWG-6.6A	10x2.5	✓	O.L			O.L			✓	
8	C4-030-SUB-HVSWG-6.6A	10x2.5	✓	O.L			O.L			✓	
9	C5-030-SUB-HVSWG-6.6A	10x2.5	✓	O.L			O.L			✓	
10	C1-030-SUB-HVSWG-6.6B	10x2.5	✓	O.L			O.L			✓	
11	C2-030-SUB-HVSWG-6.6B	10x2.5	✓	O.L			O.L			✓	
12	C3-030-SUB-HVSWG-6.6B	10x2.5	✓	O.L			O.L			✓	

Remarks :-

Referance

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SHEET NO	SYSTEM NO.:
PTJ-ELE-RFI- 208	02/06/2021	ITR-EL-0006B	ELEC		

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	24	500	

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	pair conductors	conductors to armor	Shield to Shield	All Conductors-GND	Overall Shield -GND	Armor -GND	RESULT	
										Pass	FAIL
13	C4-030-SUB-HVSWG-6.6B	10x2.5	✓	O.L			O.L			✓	
14	C5-030-SUB-HVSWG-6.6B	10x2.5	✓	O.L			O.L			✓	
15	C1-030-SUB-LVSWG-1A	10x2.5	✓	O.L			O.L			✓	
16	C1-030-SUB-LVSWG-1B	10x2.5	✓	O.L			O.L			✓	
17	C1-030-PM-04A	10x2.5	✓	O.L			O.L			✓	
18	C1-030-PM-04B	10x2.5	✓	O.L			O.L			✓	
19	C1-030-PM-05A	10x2.5	✓	O.L			O.L			✓	
20	C1-030-PM-05B	10x2.5	✓	O.L			O.L			✓	
21	C3-030-SUB-AVR-1A	1x3x2.5	✓	O.L			O.L			✓	
22	C3-030-SUB-AVR-1B	1x3x2.5	✓	O.L			O.L			✓	
23	C6-030-SUB-HVSWG-6.6A	3x2.5	✓	O.L			O.L			✓	
24	C6-030-SUB-HVSWG-6.6B	3x2.5		O.L			O.L			✓	

Remarks :-

Referance

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SYSTEM NO.:
PTJ-ELE-RFI- 208	02/06/2021	ITR-EL-0006B	ELEC	SHEET NO

INSTRUMENT TYPE:	SERIAL:	SERVICE VOLTAGE:	TEST VOLTAGE:	AREA / PACKAGE:
HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000	17015900385	24	500	

NO	Item/Tag NO.	CABLE SIZE	Continuity Test	pair conductors	conductors to armor	Shield to Shield	All Conductors-GND	Overall Shield -GND	Armor -GND	RESULT	
										Pass	FAIL
25	C2-030-SUB-LVSWG-1A	3x2.5	✓	O.L			O.L			✓	
26	C2-030-SUB-LVSWG-1B	3x2.5	✓	O.L			O.L			✓	
27	C8-030-SUB-HVSWG-6.6A	8x(3x2.5)	✓	O.L			O.L			✓	
28	C8-030-SUB-HVSWG-6.6B	8x(3x2.5)	✓	O.L			O.L			✓	
29	C9-030-SUB-HVSWG-6.6A	3x2.5	✓	O.L			O.L			✓	
30	C10-030-SUB-HVSWG-6.6A	3x2.5	✓	O.L			O.L			✓	
31	C9-030-SUB-HVSWG-6.6B	3x2.5	✓	O.L			O.L			✓	
32	C10-030-SUB-HVSWG-6.6B	3x2.5	✓	O.L			O.L			✓	
33											
34											
35											
36											

Remarks :-

Referance

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	Islam Sherif	
SIGNATURE			
DATE	8/6/2021		

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.07- Electrical Cables Termination Certificates

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

Owner :	Egyptian General Petroleum Corporation (EGPC)	Project No: 01251-100-030 :01251-100-031
Contractor	CONSORTIUM (ENPPI / PETROJET)	Document No: ITR-QC-0001 Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND SPLICING

NOTIFICATION NO. : PTJ-INS-RFI- 206 DISCIPLINE : E&I

DATE : : 5/24/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	CABLE TERMINATIN AND SPLICING	MODULE 1	24-May-21				
1	P/1-030-SUB-PTR-1A						
2	P/2-030-SUB-PTR-1A						
3	P/3-030-SUB-PTR-1A						
4	G1-030-SUB-NER-1A						
5	P/1-030-SUB-PTR-1B						
6	P/2-030-SUB-PTR-1B						
7	P/3-030-SUB-PTR-1B						
8	G1-030-SUB-NER-1B						
9	P/1-030-SUB-HVSWG-6.6A						
10	P/2-030-SUB-HVSWG-6.6A						
11	P/3-030-SUB-HVSWG-6.6A						
12	P/4-030-SUB-HVSWG-6.6A						
13	P/1-030-SUB-HVSWG-6.6B						
14	P/2-030-SUB-HVSWG-6.6B						
15	P/3-030-SUB-HVSWG-6.6B						
16	P/4-030-SUB-HVSWG-6.6B						
17	P-030-SUB-TR-1A						
18	P-030-SUB-TR-1B						
19	P-030-EPM2-TR-1						

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE		Islam Sharif	M. Omar
DATE			

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE TERMINATION AND SPLICING

SYSTEM NO.:

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	ITR NUMBER	DISPLINE	SHEET NO
RFI-206		ITR-EL-0009	ELEC	1 OF 1

Item/Tag NO.					
Type :-		Core:		Size:	

NO.	Description of check	RESUNT		
		ACCEPT	REJECT	N/A.
1	Check cable glands are correct type and size as per cable schedule.	✓		
2	Check there are no damages to cores, termination chamber layout is satisfactory, core identification is correct, crimped and pins satisfactory.	✓		
3	Check cable tag is done correctly.	✓		
4	Test and confirm conductor, phase continuity.	✓		
5	Check insulation resistance test (megger) is completed *'	✓		
6	Check Hi-pot test is completed, only for MV/HV cables *''	✓		
7	Connect all cores at both ends and confirm all connections are correct as per termination diagram.	✓		
8	Confirm spare cores, screens are earthed and conform to design drawings/specifications			✓
9	Check enclosure cover is installed , no damages and no bolts are missing	✓		
10	Calibration test certificate of testing equipment to be checked.	✓		

Remarks :

	PETROJET	ENPPI	PMC
NAME :		Islam Sharif	
SIGNATURE			M. Omer
DATE			

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

Owner :	Egyptian General Petroleum Corporation (EGPC)	Project No: 01251-100-030 :01251-100-031
Contractor	CONSORTIUM (ENPPI / PETROJET)	Document No: ITR-QC-0001 Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : HIGH VOLTAGE Panel Installation

NOTIFICATION NO. : PTJ-RFI-EL-162 DISCIPLINE : ELECTRICAL

DATE : : 4/3/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	HIGH VOLTAGE PANEL INSTALLATION	AGROUD MODULE 1 SUB BUILDING	3-Apr-21				
1	030-SUB- HVSWG-6.6KV						

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

- Door lock for C.B for C.G.A is broken by PTJ
- Earth lock for C.B is broken - by PTJ
- Bus bars must be installed & Accessories must be installed (Done) SA

	PETROJET	ENPPI	PMC
NAME :		Reem Fouad	
SIGNATURE	Sabl		
DATE			

- Torque must be done by supplier (Done) Sabl

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

Medium Voltage Switchgear Pre- Installation

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SHEET NO
RFI-162		ITR-EL-0013	ELECTRICAL	

JOB DESCRIPTION	AREA DESCRIPTION
MEDIUM VOLTAGE SWITCHGEAR INSTALLATION	AGROOD MODULE 1 SUB BUILDING

Tag No.	030-SUB-HVSWG-6.6	Serial No.	

NO.	INSPECTION	RESULT		
		ACCEPT	REJECT	N/A.
1	Check that physical and mechanical conditions of the shipped equipments and components are clear of damage after transportation.	✓		
2	Check that the ground leveling of the switchgear room as per required in the installation manual.	✓		
3	Check that the cable trench (if any) is suitable to the layout of the switchgear.			✓
4	Check that the dimensions of switchgear room including the space surround the switchgear are as per required in installation manual.	✓		
5	Check that the doors of the switchgear room are suitable for the switchgear installation and operation	✓		
6	Verify the switchgear room is suitable for environmental conditions as temp., humidity, ventilation, altitude, dust, …. etc.			✓
7	Verify that air conditioning unit or outlet is not allocated above or in face of switchgear. (if any)	✓		
8	Review the good fixation of the metal frame to the concert (if any)			✓

REMARKS:

REFERENCE DOCUMENTS:

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

Enppi | EGPC CRUDE OIL TANK FARM | EGPC

Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030
:01251-100-031

Contractor : CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0001
Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND TEST

NOTIFICATION NO. : PTJ-ELE-RFI- 169

DISCIPLINE : ELEC

DATE : : 10/04/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
1	P1-030-SUB-HVSWG-6.6A	SUBSTATION					
2	P1-030-SUB-HVSWG-6.6B	SUBSTATION					
3	D-030-SUB-HVSWG-6.6A	SUBSTATION					
4	D-030-SUB-HVSWG-6.6B	SUBSTATION					
5	C7-030-SUB-HVSWG-6.6A	SUBSTATION					
6	C7-030-SUB-HVSWG-6.6B	SUBSTATION					
7	P1-030-SUB-PFC-1A	SUBSTATION					
8	D-030-SUB-PFC-1A	SUBSTATION					
9	C1-030-SUB-PFC-1A	SUBSTATION					
10	C2-030-SUB-PFC-1A	SUBSTATION					
11	P1-030-SUB-PFC-1B	SUBSTATION					
12	D-030-SUB-PFC-1B	SUBSTATION					
13	C1-030-SUB-PFC-1B	SUBSTATION					
14	C2-030-SUB-PFC-1B	SUBSTATION					
15	C3-030-SUB-LVSWG-1A	SUBSTATION					
16	C3-030-SUB-LVSWG-1B	SUBSTATION					
17	C3-030-SUB-ACUPS-1	SUBSTATION					

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE TERMINATION AND SPLICING

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	ITR NUMBER	SYSTEM NO.:	
PTJ-ELE-RFI-	10/04/2021	ITR-EL-0009	DISPLINE: ELEC	SHEET NO: 1 OF 1

Item/Tag NO.	For All Cables tages in PTJ-ELE-RFI-				
Type :-		Core:		Size:	

NO.	Description of check	RESUNT		
		ACCEPT	REJECT	N/A.
1	Check cable glands are correct type and size as per cable schedule.	✓		
2	Check there are no damages to cores, termination chamber layout is satisfactory, core identification is correct, crimped and pins satisfactory.	✓		
3	Check cable tag is done correctly.	✓		
4	Test and confirm conductor, phase continuity.	✓		
5	Check insulation resistance test (megger) is completed *'	✓		
6	Check Hi-pot test is completed, only for MV/HV cables *''			✓
7	Connect all cores at both ends and confirm all connections are correct as per termination diagram.	✓		
8	Confirm spare cores, screens are earthed and conform to design drawings/specifications			✓
9	Check enclosure cover is installed , no damages and no bolts are missing	✓		
10	Calibration test certificate of testing equipment to be checked.	✓		

Remarks :

*' : ITR-EL-006A/B

*'' :ITR-EL-008

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

Owner :	Egyptian General Petroleum Corporation (EGPC)	Project No: 01251-100-030 :01251-100-031
Contractor	CONSORTIUM (ENPPI / PETROJET)	Document No: ITR-QC-0001 Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND SPLICING

NOTIFICATION NO. : PTJ-INS-RFI- 206 DISCIPLINE : E&I

DATE : : 5/24/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	CABLE TERMINATIN AND SPLICING	MODULE 1	24-May-21				
1	P/1-030-SUB-PTR-1A						
2	P/2-030-SUB-PTR-1A						
3	P/3-030-SUB-PTR-1A						
4	G1-030-SUB-NER-1A						
5	P/1-030-SUB-PTR-1B						
6	P/2-030-SUB-PTR-1B						
7	P/3-030-SUB-PTR-1B						
8	G1-030-SUB-NER-1B						
9	P/1-030-SUB-HVSWG-6.6A						
10	P/2-030-SUB-HVSWG-6.6A						
11	P/3-030-SUB-HVSWG-6.6A						
12	P/4-030-SUB-HVSWG-6.6A						
13	P/1-030-SUB-HVSWG-6.6B						
14	P/2-030-SUB-HVSWG-6.6B						
15	P/3-030-SUB-HVSWG-6.6B						
16	P/4-030-SUB-HVSWG-6.6B						
17	P-030-SUB-TR-1A						
18	P-030-SUB-TR-1B						
19	P-030-EPM2-TR-1						

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE		® Islam Sharif	M. Omar
DATE			

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030
:01251-100-031

Contractor CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0001
Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND TEST

NOTIFICATION NO. : PTJ-ELE-RFI- 208 DISCIPLINE : ELEC

DATE : : 02/06/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
1	C1-030-SUB-AVR-1A	SUBSTATION					
2	C2-030-SUB-PTR-1A	SUBSTATION					
3	C1-030-SUB-AVR-1B	SUBSTATION					
4	C2-030-SUB-PTR-1B	SUBSTATION					
5	C1-030-SUB-HVSWG-6.6A	SUBSTATION					
6	C2-030-SUB-HVSWG-6.6A	SUBSTATION					
7	C3-030-SUB-HVSWG-6.6A	SUBSTATION					
8	C4-030-SUB-HVSWG-6.6A	SUBSTATION					
9	C5-030-SUB-HVSWG-6.6A	SUBSTATION					
10	C1-030-SUB-HVSWG-6.6B	SUBSTATION					
11	C2-030-SUB-HVSWG-6.6B	SUBSTATION					
12	C3-030-SUB-HVSWG-6.6B	SUBSTATION					
13	C4-030-SUB-HVSWG-6.6B	SUBSTATION					
14	C5-030-SUB-HVSWG-6.6B	SUBSTATION					
15	C1-030-SUB-LVSWG-1A	SUBSTATION					
16	C1-030-SUB-LVSWG-1B	SUBSTATION					
17	C1-030-PM-04A	SUBSTATION					

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

Owner :	Egyptian General Petroleum Corporation (EGPC)	Project No: 01251-100-030 :01251-100-031
Contractor	CONSORTIUM (ENPPI / PETROJET)	Document No: ITR-QC-0001 Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND TEST

NOTIFICATION NO. : PTJ-ELE-RFI- 208 DISCIPLINE : ELEC

DATE : : 02/06/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
18	C1-030-PM-04B	SUBSTATION					
19	C1-030-PM-05A	SUBSTATION					
20	C1-030-PM-05B	SUBSTATION					
21	C3-030-SUB-AVR-1A	SUBSTATION					
22	C3-030-SUB-AVR-1B	SUBSTATION					
23	P1-030-SUB-TR-1A	SUBSTATION					
24	P1-030-SUB-TR-1B	SUBSTATION					
25	P1-030-LPDP-CR-1	SUBSTATION					
26	P1-030-LPDP-CR-2	SUBSTATION					
27	P1-030-LPDP-CR-3	SUBSTATION					
28	C6-030-SUB-HVSWG-6.6A	SUBSTATION					
29	C6-030-SUB-HVSWG-6.6B	SUBSTATION					
30	C2-030-SUB-LVSWG-1A	SUBSTATION					
31	C2-030-SUB-LVSWG-1B	SUBSTATION					
32	P1-030-SUB-NER-1A	SUBSTATION					
33	P1-030-SUB-NER-1B	SUBSTATION					
34	P1-030-SUB-PTR-1A	SUBSTATION					

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi

EGPC CRUDE OIL TANK FARM

EGPC

Owner :	Egyptian General Petroleum Corporation (EGPC)	Project No: 01251-100-030 :01251-100-031
Contractor	CONSORTIUM (ENPPI / PETROJET)	Document No: ITR-QC-0001 Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : CABLE TERMINATION AND TEST

NOTIFICATION NO. : PTJ-ELE-RFI- 208 DISCIPLINE : ELEC

DATE : : 02/06/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
35	P2-030-SUB-PTR-1A	SUBSTATION					
36	P1-030-SUB-PTR-1B	SUBSTATION					
37	P2-030-SUB-PTR-1B	SUBSTATION					
38	P1-030-SUB-HVSWG-11	SUBSTATION					
39	C8-030-SUB-HVSWG-6.6A	SUBSTATION					
40	C8-030-SUB-HVSWG-6.6B	SUBSTATION					
41	C9-030-SUB-HVSWG-6.6A	SUBSTATION					
42	C10-030-SUB-HVSWG-6.6A	SUBSTATION					
43	C9-030-SUB-HVSWG-6.6B	SUBSTATION					
44	C10-030-SUB-HVSWG-6.6B	SUBSTATION					
45							
46							
47							
48							
49							
50							
51							
52							
53							

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

CABLE TERMINATION AND SPLICING

SYSTEM NO.:

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	ITR NUMBER	DISPLINE	SHEET NO
PTJ-ELE-RFI-	02/06/2021	ITR-EL-0009	ELEC	1 OF 1

Item/Tag NO.	For All Cables tages in PTJ-ELE-RFI-				
Type :-		Core:		Size:	

NO.	Description of check	RESUNT		
		ACCEPT	REJECT	N/A.
1	Check cable glands are correct type and size as per cable schedule.	✓		
2	Check there are no damages to cores, termination chamber layout is satisfactory, core identification is correct, crimped and pins satisfactory.	✓		
3	Check cable tag is done correctly.	✓		
4	Test and confirm conductor, phase continuity.	✓		
5	Check insulation resistance test (megger) is completed *'	✓		
6	Check Hi-pot test is completed, only for MV/HV cables *''	X		✓
7	Connect all cores at both ends and confirm all connections are correct as per termination diagram.	✓		
8	Confirm spare cores, screens are earthed and conform to design drawings/specifications	✓		
9	Check enclosure cover is installed , no damages and no bolts are missing	✓		
10	Calibration test certificate of testing equipment to be checked.			✓

Remarks :

*' : ITR-EL-006A/B

*'' :ITR-EL-008

	PETROJET	ENPPI	PMC
NAME :	Ahmed Hassan	® Islam Sherif	
SIGNATURE			
DATE	6/6/2021		

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

Medium Voltage Switchgear Installation

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SHEET NO
RFI-162		ITR-EL-0014	ELECTRICAL	

JOB DESCRIPTION

AREA DESCRIPTION: AGROOD MODULE 1 SUB BUILDING

Tag No.	031-SUB-HVSWG-6.6	Serial No.	

NO.	INSPECTION	Cell ( )	Cell ( )	Cell ( )	Cell ( )	Cell ( )	Cell ( )	Cell ( )	Cell ( )	Notes
1	Verify using of gasket between the switchgear panels as per installation manual and at the front-end panel. (if any)	✓	✓	✓	✓					
2	Check that panels are assembled together and fixed to the ground by using suitable fasteners as per the installation manual.	✓								
3	Verify proper alignment of the panels in the three dimensions.	✓								
4	Verify that the supporting iron is not bended	N/A								
5	Verify that the main busbars are connected using suitable fasteners for each busbar rated current as per installation manual instructions.	N/A								
6	Check that earthing busbars are connected between panels.	✓								
7	Verify the tightening torque for the main busbars and earthing busbars according to manufacturer's published data. In the absence of manufacturer's published data use table 1.	N/A				All Cells				
8	After tightening each electrical connection to the appropriate torque, apply some Varnish between the nut and the screw (or else, between the screw's head and the copper bar or the device for tightening on a threaded part	N/A			for					
9	Verify that the connections isolating covers are used and installed properly (If any).	N/A								
10	Verify that the layout arrangement of the panels is done in accordance to the drawings.	✓								
11	Verify that the interconnections wire is protected against any sharp edges.	N/A								
12	Check that the cable glands are cutting according to the number and diameter of cables.	N/A								

Enppi PETROJET

EGPC CRUDE OIL TANK FARM

EGPC

INSPECTION AND TEST REPORT FOR

Medium Voltage Switchgear Installation

INSPECTION REPORT NUMBER	INSPECTION DATE & TIME	DOUCUMENT No.	DISPLINE	SHEET NO
RFI-162		ITR-EL-0014	ELECTRICAL	

13	Check that the main earthing bar of the switchgear is connected to the earthing system of the switchgear room.	N/A									
14	Verify that all internal earthing cables are connected to the earthing busbars for each panel.	N/A									
15	Verify installation of the IPX1 or IPX2 roofs as per installation manual instructions (if available).	N/A									
16	Verify installation of the anti-arc tunnel as per installation manual instructions (if available).	N/A									

for All cells

REMARKS:

REFERENCE DOCUMENTS:

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.08- FAT Reports & Certificates

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.09- SAT Reports & Certificates

Schneider Electric

Cell:Q-A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-AB

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-BA

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-1A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-1B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-2A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-2B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-3A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-3B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-4A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-4B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-5A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-5B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-6A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-6B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-7A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-7B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection			
	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-8A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments---

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----

Schneider Electric

Cell:Q-8B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-9A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection			
	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

* DP-2, CB compartment door handle is broken and shall be replaced by Schneider

Comments---C.B. compartment door handle is broken and shall be replaced by Schneider

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature-

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-9B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-10A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric

Cell:Q-10B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Functional operational tests for MV Switchgear.

Visual and Mechanical inspection

	DESCRIPTION	STATUS	NOTE
1	Insure that the auxiliary supply required for the operation is connected.	OK	
2	Check the Electrical closing / opening of the circuit breaker in draw in position	OK	
3	Check the Electrical closing / opening of the circuit breaker in draw out position	OK	
4	Check the Electrical closing / opening of the circuit breaker in test position (If any)	OK	
5	Check the electrical indicators which are present in the LV compartment doors and its compatibility with the operation mode statues	OK	
6	Check the mechanical indicators which present and its compatibility with the operation mode statues	OK	
7	Check the operation of the earthing switch.	OK	
8	Check the mechanical indicator of the Earthing switch statues (Close / open)	OK	
9	Check the mechanical interlock between the circuit breaker and the earthing switch	OK	
10	Check the mechanical interlocking system by keys as per drawings "if any"	OK	
11	Check the mechanical interlocking system by keys for B.B earthing as per drawings "if any".	OK	
12	Check all operation modes of the switchgear (i.e. local, auto, remote.....etc) as per the drawings. Simulate all external signals to the switchgear.	OK	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Medium Voltage Insulation Resistance Test Sheet	MV-TS-01

Date :27/6/2021	Site Location : AGROOD - I
Order Number : S2000815-06	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Insulation-resistance tests

Test Device:	
Model: Megger	S.N: SRV1147858pg

Test voltage	
Applied DC test voltage	5KVDC

For bus section 1:

Insulation resistance (Megohms)			
Phase to phase	**A-B: 423G**	**B-C:480G**	**C-A: 345G**
Phase to ground	**A-GND: 103G**	**B-GND: 80G**	**C-GND: 93G**

For bus section 2 (if any):

Insulation resistance (Megohms)			
Phase to phase	**A-B: 412G**	**B-C: 385G**	**C-A: 461G**
Phase to ground	**A-GND: 78G**	**B-GND: 111G**	**C-GND: 78G**

Notes: -

a) If the resistance is lower than the standard values, visually inspect the equipment for cleanliness and other potential causes.
b) If found unclean; insulating parts must be cleaned with a soft, dry, lint-free cloth. Cleaning processes that involve spraying a pressurized insulating solvent and using degreaser aerosols are absolutely forbidden.
c) If the visual inspection does not reveal the causes, recommend for the contractor to dry the equipment for a minimum of 4 hours using heat and fans. Then re-measure.
d) Make sure that the connected cables are removed and have a safe distance to avoid spark

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------
PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------
Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Cell number	Q-A		
Cell type	MC set 123		
PT Serial number	2020-1003338158	2020-1003338151	2020-1003338150
PT TYPE	ALCE		
a / n	110/√3 CL: 0.5 - 30VA ITH : 1.5A		

Visual and Mechanical inspection

Ser.	Checkpoint	STATUS	NOTE
1	Verify that equipments name plates are according to the corresponding drawings.	ok	
2	Inspect the physical and mechanical condition of the equipment for any visual damage.	ok	
3	Verify correct connection of transformers with system requirements.	ok	
4	Verify that all required grounding and shorting connections provide contact.	ok	
5	Verify that all shorting blocks are in the correct position, either grounding or open, as required	ok	
6	Verify correct operation of transformer draw out mechanism and grounding operation.	ok	
7	Verify correct primary fuse size and secondary fuse/MCB size.	ok	
8	Verify that voltage transformer secondary circuits are grounded and have only one grounding point	ok	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Dielectric test for secondary circuits

Procedure	Test result	remarks
Apply min 1 kV A.C for 1s between each line of secondary of P.T with other lines connecting to earth and record corresponding insulation resistance value taken in consideration the following		

Precaution

1- All Sec M.C.B and/or fuses of the P.T to be in off position.
2- Disconnect Primary Fuse.
3- P.Ts plug to be disconnected.

Ratio Test

Applied primary voltage	Rated Ratio	Measured Sec voltage	Measured Ratio	Test result
PHASE A , B (406) V		PHASE A , B (6.8) V		OK
PHASE B , C (406) V		PHASE B, C (6.8) V		OK
PHASE C , A (406) V		PHASE C , A (6.8) V		OK
Open delta check				0 V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Cell number	Q-B		
Cell type	MC set 123		
PT Serial number	2020-1003338155	2020-1003338160	2020-1003338142
PT TYPE	ALCE		
a / n	110/√3 CL: 0.5 - 30VA ITH : 1.5A		

Visual and Mechanical inspection

Ser.	Checkpoint	STATUS	NOTE
1	Verify that equipments name plates are according to the corresponding drawings.	ok	
2	Inspect the physical and mechanical condition of the equipment for any visual damage.	ok	
3	Verify correct connection of transformers with system requirements.	ok	
4	Verify that all required grounding and shorting connections provide contact.	ok	
5	Verify that all shorting blocks are in the correct position, either grounding or open, as required	ok	
6	Verify correct operation of transformer draw out mechanism and grounding operation.	ok	
7	Verify correct primary fuse size and secondary fuse/MCB size.	ok	
8	Verify that voltage transformer secondary circuits are grounded and have only one grounding point	ok	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Dielectric test for secondary circuits		
Procedure	Test result	remarks
Apply min 1 kV A.C for 1s between each line of secondary of P.T with other lines connecting to earth and record corresponding insulation resistance value taken in consideration the following		

Precaution

1- All Sec M.C.B and/or fuses of the P.T to be in off position.
2- Disconnect Primary Fuse.
3- P.Ts plug to be disconnected.

Ratio Test				
Applied primary voltage	Rated Ratio	Measured Sec voltage	Measured Ratio	Test result
PHASE A , B (406) V		PHASE A , B (6.8) V		OK
PHASE B , C (406) V		PHASE B, C (6.8) V		OK
PHASE C , A (406) V		PHASE C , A (6.8) V		OK
Open delta check				0 V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Cell number	Q-BA		
Cell type	MC set 123		
PT Serial number	2020-1003338145	2020-1003338152	2020-1003338157
PT TYPE	ALCE		
a / n	110/√3 CL: 0.5 - 30VA ITH : 1.5A		

Visual and Mechanical inspection

Ser.	Checkpoint	STATUS	NOTE
1	Verify that equipments name plates are according to the corresponding drawings.	ok	
2	Inspect the physical and mechanical condition of the equipment for any visual damage.	ok	
3	Verify correct connection of transformers with system requirements.	ok	
4	Verify that all required grounding and shorting connections provide contact.	ok	
5	Verify that all shorting blocks are in the correct position, either grounding or open, as required	ok	
6	Verify correct operation of transformer draw out mechanism and grounding operation.	ok	
7	Verify correct primary fuse size and secondary fuse/MCB size.	ok	
8	Verify that voltage transformer secondary circuits are grounded and have only one grounding point	ok	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Dielectric test for secondary circuits

Procedure	Test result	remarks
Apply min 1 kV A.C for 1s between each line of secondary of P.T with other lines connecting to earth and record corresponding insulation resistance value taken in consideration the following		

Precaution

1- All Sec M.C.B and/or fuses of the P.T to be in off position.
2- Disconnect Primary Fuse.
3- P.Ts plug to be disconnected.

Ratio Test

Applied primary voltage	Rated Ratio	Measured Sec voltage	Measured Ratio	Test result
PHASE A , B (406) V		PHASE A , B (6.8) V		OK
PHASE B , C (406) V		PHASE B, C (6.8) V		OK
PHASE C , A (406) V		PHASE C , A (6.8) V		OK
Open delta check				0 V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Cell number	Q-10A		
Cell type	MC set 123		
PT Serial number	2020-1003331260	2020-1003331264	2020-1003331261
PT TYPE	ALCE		
a / n	110/√3 CL: 0.5 - 30VA ITH : 1.5A		

Visual and Mechanical inspection

Ser.	Checkpoint	STATUS	NOTE
1	Verify that equipments name plates are according to the corresponding drawings.	ok	
2	Inspect the physical and mechanical condition of the equipment for any visual damage.	ok	
3	Verify correct connection of transformers with system requirements.	ok	
4	Verify that all required grounding and shorting connections provide contact.	ok	
5	Verify that all shorting blocks are in the correct position, either grounding or open, as required	ok	
6	Verify correct operation of transformer draw out mechanism and grounding operation.	ok	
7	Verify correct primary fuse size and secondary fuse/MCB size.	ok	
8	Verify that voltage transformer secondary circuits are grounded and have only one grounding point	ok	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Dielectric test for secondary circuits		
Procedure	Test result	remarks
Apply min 1 kV A.C for 1s between each line of secondary of P.T with other lines connecting to earth and record corresponding insulation resistance value taken in consideration the following		

Precaution

1- All Sec M.C.B and/or fuses of the P.T to be in off position.
2- Disconnect Primary Fuse.
3- P.Ts plug to be disconnected.

Ratio Test				
Applied primary voltage	**Rated Ratio**	**Measured Sec voltage**	**Measured Ratio**	**Test result**
PHASE A , B (406) V		**PHASE A , B (6.8) V**		**OK**
PHASE B , C (406) V		**PHASE B, C (6.8) V**		OK
PHASE C , A (406) V		**PHASE C , A (6.8) V**		OK
Open delta check				0 V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------
PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------
Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Cell number	Q-10AB		
Cell type	MC set 123		
PT Serial number	2020-1003338155	2020-1003338160	2020-1003338142
PT TYPE	ALCE		
a / n	110/√3 CL: 0.5 - 30VA ITH : 1.5A		

Visual and Mechanical inspection

Ser.	Checkpoint	STATUS	NOTE
1	Verify that equipments name plates are according to the corresponding drawings.	ok	
2	Inspect the physical and mechanical condition of the equipment for any visual damage.	ok	
3	Verify correct connection of transformers with system requirements.	ok	
4	Verify that all required grounding and shorting connections provide contact.	ok	
5	Verify that all shorting blocks are in the correct position, either grounding or open, as required	ok	
6	Verify correct operation of transformer draw out mechanism and grounding operation.	ok	
7	Verify correct primary fuse size and secondary fuse/MCB size.	ok	
8	Verify that voltage transformer secondary circuits are grounded and have only one grounding point	ok	

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Potential Transformers Test Sheet	MV-TS-04

Date : 20/6/2021	Site Location : Suze
Order Number : S2000815-06	Equip. Tag : HVSWG-6.6
Customer : ENPPI	Rated Voltage : 7.2 KV
Project : GAROOD	Service voltage : 6.6 KV

Dielectric test for secondary circuits

Procedure	Test result	remarks
Apply min 1 kV A.C for 1s between each line of secondary of P.T with other lines connecting to earth and record corresponding insulation resistance value taken in consideration the following		

Precaution

1- All Sec M.C.B and/or fuses of the P.T to be in off position.
2- Disconnect Primary Fuse.
3- P.Ts plug to be disconnected.

Ratio Test

Applied primary voltage	Rated Ratio	Measured Sec voltage	Measured Ratio	Test result
PHASE A , B (406) V		PHASE A , B (6.8) V		OK
PHASE B , C (406) V		PHASE B, C (6.8) V		OK
PHASE C , A (406) V		PHASE C , A (6.8) V		OK
Open delta check				0 V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem -- Signature----------

Schneider rep.: Name—Mahmoud abd elnour -------- Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q -A
Protection relay type	Esargey P3
Protection relay serial number	SM202220053

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	1250A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	1250A
	Base current (Ib)	1250A
	Residual current	1250A
	Rated residual current (In0)	1250A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 1250A I2 = 1250A I3 = 1250A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.013Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	118mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.010Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	115mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q -B
Protection relay type	Esargey P3
Protection relay serial number	EB202220058

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	1250A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	1250A
	Base current (Ib)	1250A
	Residual current	1250A
	Rated residual current (In0)	1250A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 1250A I2 = 1250A I3 = 1250A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.020Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	118mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.017Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	119mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -AB

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q -AB
Protection relay type	Esargey P3
Protection relay serial number	SM202110053

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	1250A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	1250A
	Base current (Ib)	1250A
	Residual current	1250A
	Rated residual current (In0)	1250A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 1250A I2 = 1250A I3 = 1250A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q -AB

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.023Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	108mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	105mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 1A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 1A	
Protection relay type	Esargey P3	
Protection relay serial number	SM202220053	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 1A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	Iadjusted	Iinjected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.023Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	108mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	105mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 1B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 1B
Protection relay type	Esargey P3
Protection relay serial number	SM202110050

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 1B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.015Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	117mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.019Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	111mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 2A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 2A
Protection relay type	Esargey P3
Protection relay serial number	SM202110052

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 2A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.018Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	108mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.015Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	109mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 2B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 2 B
Protection relay type	Esargey P3
Protection relay serial number	SM202110006

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q.2B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.012Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	119mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.021Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	113mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name---Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 3A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 3A
Protection relay type	Esargey P3
Protection relay serial number	SM202170498

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 3A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ±.5%	acceptan ce
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.020Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	118mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	115mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 3B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 3 B
Protection relay type	Esargey P3
Protection relay serial number	SM202110015

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 3B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ±5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.022Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	109mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.009Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	107mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q4A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q4A
Protection relay type	Esargey P3
Protection relay serial number	EB202230064

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q4A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.012Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	121mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.016Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	116mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 4B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 4B	
Protection relay type	Esargey P3	
Protection relay serial number	EB202230065	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 4B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.019Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	120mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.022Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	109mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 5A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 5A
Protection relay type	Esargey P3
Protection relay serial number	SM202110056

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 = 80A I3 = 80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 5A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.017Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	120mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1 5A	1Sec	1.018Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0 4 InO	3A	100mS	120mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 5B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 5 B
Protection relay type	Esargey P3
Protection relay serial number	SM 202110063

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 = 80A I3 = 80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 5B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ±5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.022Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	112mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.019Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	118mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q6A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 6A
Protection relay type	Esargey P3
Protection relay serial number	EB202230066

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q6A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	Curve	Setting and Testing Points						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.019Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	119mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	113mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 6B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q6 B
Protection relay type	Esargey P3
Protection relay serial number	SM 202110026

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 6B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	Curve	Setting and Testing Points						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.020Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	116mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.009Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	122mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q7A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q7A
Protection relay type	Esargey P3
Protection relay serial number	EB202230054

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q7A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.022Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	111mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	113mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name---Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 7B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 7 B	
Protection relay type	Esargey P3	
Protection relay serial number	EB202230069	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 7B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.022Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	117mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.012Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	119mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 8A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 8A	
Protection relay type	Esargey P3	
Protection relay serial number	EB202230055	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 8A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.018Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	120mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.022Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	116mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 8B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 8 B	
Protection relay type	Esargey P3	
Protection relay serial number	EB202230025	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 8B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	I adjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7 5A	1Sec	1.020Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	119mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1 019Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	117mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 9A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 9A	
Protection relay type	Esargey P3	
Protection relay serial number	SM202110011	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 9A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.022Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	119mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.020Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	115mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 9B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q 9 B
Protection relay type	Esargey P3
Protection relay serial number	SM 202110043

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	150A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	150A
	Base current (Ib)	150A
	Residual current	150A
	Rated residual current (In0)	150A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 150A I2 = 150A I3 = 150A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q 9B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.019Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	116mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.009Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	108mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q10A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q10A
Protection relay type	Esargey P3
Protection relay serial number	SM202110011

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 K V V2 = 6.6 K V

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q10A

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 = 6.6 K V

Protection setting

Applied for Esargy P3

Function	Curve	Setting and Testing Points						
		curve	Fadjusted	i injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.012Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	116mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.015Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	119mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q10B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

Protection relays: Esargy P3

- This test must be made individually for each protection relay by using a secondary injection of the current and voltage.
- Before work starts a backup file for the configuration must be taken from relevant devices; doesn't apply on new devices.
- In case of customized tripping curves (customer scope) is selected for 50/51 and 50N/51N the tripping curve must be manually selected from the device after sending the configuration file.

Cell number / type	Cell: Q10 B	
Protection relay type	Esargey P3	
Protection relay serial number	SM 202110010	

GENERAL INSPECTION.

DESCRIPTION	STATUS	NOTE
Preliminary general examination, prior to energizing	ok	
Energizing	Ok	
Parameter and protection settings	Ok	
Logic input connection	Ok	
Logic output connection	Ok	
Validation of the complete protection chain	N/A	
Analog output connection to the module and testing	Ok	
Temperature sensor input connection and testing	Ok	

General	Description	Setting
Characteristics	Network frequency	50HZ
	CT rating (Primary)	80A
	CT rating (Secondary): 1A or 5A	5A
	Rated current (In)	80A
	Base current (Ib)	80A
	Residual current	80A
	Rated residual current (In0)	80A

Checking of Esargy P3 phase voltage and current inputs

Type of check	Test performed	Result	Display
Phase current and phase voltage input connection	Secondary injection of CT rated current, i.e. 1 A or 5 A	CT rated primary current	I1 = 80A I2 =80A I3 =80A
	Secondary injection of VT rated phase-to-neutral voltage Uns / √3	VT rated primary phase-to-neutral voltage Unp / √3	V1 = 6.6 KV V2 =6.6 KV

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

Schneider Electric	Protection Relay Series Esargy P3 Test Sheet	Q10B

Date :27/6/2021	Site Location : AGROOD
Order Number : S20008.15	Equip. Tag : Mv
Customer :Enppi	Rated Voltage : 7.2KV
Project : EGPC CRUDE OIL TANK FARM PROJECT	Service voltage : 6.6KV

			V3 =6.6 K V

Protection setting

Applied for Esargy P3								
Function	**Curve**	**Setting and Testing Points**						
		curve	I adjusted	I injected	T adjusted	t measured	error ± 5%	acceptance
Over current	50 / 51 - 1 / A	DT	1 In	7.5A	1Sec	1.015Sec		
	50 / 51 - 1 / B							
	50 / 51 - 2 / A	DT	2 In	17A	100mS	106mS		
	50 / 51 - 2 / B							
Earth fault	50N / 51N - 1 / A	DT	0.2 InO	1.5A	1Sec	1.019Sec		
	50N / 51N - 1 / B							
	50N / 51N - 2 / A	DT	0.4 InO	3A	100mS	113mS		
	50N / 51N - 2 / B							

Comments----------

Enppi rep.: Name-Eng . Ahmed Nadeem ---------- Signature----------

PPC rep.: Name--------Eng: Mohamed Ibrahiem Signature----------

Schneider rep.: Name—Mahmoud abd elnour Signature----------

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.10- Electrical Pre-Commissioning Check Lists

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
LOW VOLTAGE CABLES
EL-30 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables (power/ control) are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, tightness, termination and joints of cables are correctly executed.	✓	
7	Check where conductors have been terminated using crimped connections; ensure the correct size and type of crimping lugs.	✓	
8	Check that the bending radius of cables is not less than the minimum established.	✓	
9	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
10	Tie wraps to be used for cable and wires fixation.	✓	
11	Cable connections shall be torque tested.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
LOW VOLTAGE CABLES
EL-30 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Check that buried cables are correctly covered and protected.	NA	
13	Trench markers to be checked w.r.t approved documents.	NA	
14	Check cable glands for tightness & check the correct type of gland has been used for the size and type of installed cables.	~~NA~~	
15	Inspect cable laid in trenches, segregation and protection.	NA	
16	Cables to be tested (continuity/insulation resistance). (*)	✓	
17	Equipment test report and inspection certificate to be-checked.	✓	
18	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
19	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

(*) Refer to table (III).

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
LOW VOLTAGE CABLES
EL-30 A

INSULATION TEST

LOW VOLTAGE CABLES

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
1000V	1000V	200

TABLE [III]

NOTES:

Manufacture's test voltage & minimum values for insulation resistance should be referenced.

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PRE-COMMISSIONING CHECK LIST
MV SWITCHGEAR AND MOTOR CONTROL GEAR
EL-03 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	**GENERAL:**		
1.1	Construction punch list to be checked.	✓	
1.2	Check switchgear assembly for alignment, levelness and foundation fixing details w.r.t approved supplier.	✓	
1.3	Check panels' arrangement in accordance with approved drawings.	✓	
1.4	Check switchgear nameplate details and labels as per approved documents.	✓	
1.5	Confirm that switchgear equipment identification tag is placed against each one.	✓	
1.6	Check gasket and seal for damage.	✓	
1.7	Inspect all switchgear equipment for mechanical damage.	✓	
1.8	All compartments to be cleaned internally & externally.	✓	
1.9	Check that all connections are tight and secure.	✓	
1.10	Remove any accidental connections between phases and from phases to ground.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MV SWITCHGEAR AND MOTOR CONTROL GEAR
EL-03 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1.11	Check all supports needed for power and control cables.	✓	
1.12	Check all cubicle door bonded to chassis.	✓	
1.13	Check manual spring charging and its mechanical indication.	✓	
1.14	Check polarity of D.C supplies	NA	
1.15	Check mechanical operation of circuit breakers & earthing switches (operation mechanism).	✓	
1.16	Check cubicle anti-condensation heaters and test insulation resistance of panel heater (**)	NA	
1.17	Perform insulation-resistance tests (Megger Test) at the DC test voltage appropriate for each bus section, phase-to-phase & phase-to ground (*)	NA	
1.18	Perform insulation-resistance tests (Megger Test) at the DC test voltage appropriate for control wiring (*)	✓	
1.19	Equipment test report and inspection certificate to be-checked.	NA	
1.20	Check availability of vendor documents including commissioning and start-up instructions.	NA	

REMARKS AND OBSERVATIONS :

(**) 500 V megger, min. 10 MΩ (Manufacture's test voltage & minimum values should be referenced)
(*) Refer to table [II]

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PRE-COMMISSIONING CHECK LIST
MV SWITCHGEAR AND MOTOR CONTROL GEAR
EL-03 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
2	**BUS BAR:**		
2.1	Check Bus duct(s) connections against the approved documents.	✓	
2.2	Inspect all busbar bolted connections for tightness.	✓	
2.3	Continuity tests shall be carried out on switchgear bus- bar connections in order to check their tightness.	✓	
3	**CURRENT/VOLTAGE TRANSFORMER:**		
3.1	Check connection, polarity and ratio.	✓	
3.2	Check FAT certificates of Insulation resistance concerning primary and secondary winding.	N.A	
4	**MV INCOMER & OUTGOING:**		
4.1	Check mechanical alignment of C.B's and free movement.	✓	
4.2	Check mechanical operation of circuit breakers (operation mechanism).	✓	
4.3	Check inter-changeability of identical C.B's.	✓	

REMARKS AND OBSERVATIONS :

(*) Refer to table [II]

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MV SWITCHGEAR AND MOTOR CONTROL GEAR
EL-03 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: 030-SUB-HVSWG-6.6	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
4.4	Check FAT certificates of the protection relays.	NA	
5	**VOLTMETER/AMMETER/INSTRUMENT:**		
5.1	Check metering circuit wiring.	✓	
6	**EARTHING:**		
6.1	Check switchgear earthing connections.	✓	
6.2	Check connection of gland plate to the earthing busbar.	✓	
6.3	Continuity tests shall be carried out on switchgear earth system joints in order to check their tightness.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MV SWITCHGEAR AND MOTOR CONTROL GEAR
EL-03 A

INSULATION TEST

TABLE OF MINIMUM TEST VOLTAGES

EQUIPMENT RATED VOLTAGE (kV)	TEST VOLTAGE (V) (one minute)	MINIMUM INSULATION RESISTANCE (M.OHMS)
33	5000	200
22	5000	200
11	5000	200
6.6	1000	200
3.3	1000	200
0.6	1000	100
0.4	1000	100
CONTROL WIRING	500	10

TABLE[II]

NOTES:

Manufacture's test voltage & minimum values for insulation resistance should be referenced

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C2-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C2-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C3-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C3-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C3-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C3-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: D-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: D-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: D-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		Islam Sherif	
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: D-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	—	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	—	
16	Equipment test report and inspection certificate to be-checked.	—	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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SIGNATURE		© Islam Sherif	
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	~~NA~~	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	—	
16	Equipment test report and inspection certificate to be-checked.	—	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		Islam Sherif	
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	—	
16	Equipment test report and inspection certificate to be-checked.	—	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C10-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C10-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C10-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		islam Sherif	
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C10-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C2-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C2-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® islam Sherif	
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C6-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C6-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	—	
14	Inspect cable laid in trenches, segregation and protection.	M.M	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	—	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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SIGNATURE		® Islam Sherif	
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C7-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	N/A	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C7-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C7-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C7-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	—	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	—	
16	Equipment test report and inspection certificate to be-checked.	—	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C9-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C9-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/1-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	—	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	—	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	—	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/1-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/2-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/2-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C4-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C4-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
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DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C4-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C4-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C5-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C5-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C5-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C5-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C6-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C6-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/2-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/2-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/3-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/3-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® islam sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/3-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		© Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/3-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/4-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/4-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/4-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: P/4-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	N.A	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C8-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

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PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C8-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	N.A	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N.A	
18	Calibration test certificate of testing equipment to be checked.	N.A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® islam sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C8-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C8-030-SUB-HVSWG-6.6B	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

Islam Sherif

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C9-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	NA	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

Enppi

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

PROJECT TITLE	: EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)		
PROJECT NUMBER	: 1251-100	**DISCIPLINE**	: Electrical
SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SYSTEM ID**	: 030-EL-002
SUB-SYSTEM NAME	: Substation 6.6KV High Voltage Switchgear System	**SUB-SYSTEM ID**	: 030-EL-002
ITEM TAG No.	: C9-030-SUB-HVSWG-6.6A	**AREA**	: 30
REF. DWGs/DOCs	:		

No.	DESCRIPTION	RESULT OK/NA/PL	PL ITEM No.
12	Trench markers to be checked w.r.t approved documents.	NA	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	NA	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	NA	
18	Calibration test certificate of testing equipment to be checked.	NA	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif	
DATE			

PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

12.11- Electrical Supplier Check Lists & Reports

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

13- Electrical Commissioning

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

13.01- Electrical -Commissioning Check Lists

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

13.02- Electrical Supplier Check Lists & Reports

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

14- Red Marked-up Drawings

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

14.01- P&ID

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

14.02- Instrumentation Drawings

System ID	030-EL-002
System Description	Substation 6.6KV High Voltage Switchgear System

14.03- Electrical Drawings